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The Australasian Journal of Pharmacy



REGISTERED AT THE G.P.O. MELBOURNE, FOR TRANSMISSION BY POST AS A NEWSPAPER

THE OFFICIAL FEDERAL JOURNAL of the ASSOCIATED PHARMACEUTICAL ORGANISATIONS of AUSTRALIA

OFFICIAL JOURNAL OF THE PHARMACEUTICAL SOCIETY OF NEW ZEALAND

New Series: Vol. 33 No. 395

NOVEMBER 29, 1952

Old Series: Vol. LXVII—No. 803



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Published on the 30th of each month by

The Australasian Pharmaceutical Publishing Co. Ltd.
Registered Office, 354-364 Swanston Street, Melbourne.

Telephones: FJ 3047, FJ 5161

Subscription: Within British Empire, £1/15/- p.a.; other addresses, £2.
Single copies: Within Australia, 3/-; overseas, 3/6.

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CONTENTS

NOVEMBER, 1952

	Page
● Editorial	1013
● The Month	1014
● Science Section	1017
● Applied Pharmaceutics	1029
● Retail Productivity Team from Great Britain Visits the U.S.A.	1030
● Chemical Control of Insects and Mites	1033
● Presentation of Portrait of W. A. T. S. Sissons	1038
● Registration of Aliens (South Australian Bill)	1043
● Pharmaceutical Benefits Act	1047
● The Social Sciences (Fellowship Lectures in South Australia)— Article No. 4	1051
● Pharmacy in Scandinavia	1054
● The Women Pharmacists' Page	1057
● Readers' Views	1057
● Legal	1058
● Overseas News	1061
● Guide to New Prescription Proprieties Facing pages 1062 and	1063
● Trade Notes	1063
● Market Report	1065
● The Big Store, the Small Man and Service to the Public	1066
● News and Reports— Western Australia	1069
Tasmania	1070
New South Wales	1072
Victoria	1083
Queensland	1100
South Australia	1105

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OFFICIAL ANNOUNCEMENTS

PHARMACY BOARD OF VICTORIA

EXAMINATION DATES 1953.

Preliminary Examination.—May 12-15.

Intermediate Examination.—February 18-25.

Final Examination.—March 2-9.

Entries for the Preliminary and Intermediate Examinations close fourteen days, and for the Final Examination twenty-one days, before the date of commencement of the Examination.

Full details obtainable from the office of the Board
F. C. KENT, Registrar.

360 Swanston Street,
Melbourne.

PHARMACY BOARD OF N.S.W.

QUALIFYING EXAMINATION

The next Qualifying Examination will commence at the Sydney University on Tuesday, February 3, 1953.

Time Table:

Pharmaceutics I	Tuesday, February 3. Morning.
Pharmaceutical Arithmetic	Tuesday, February 3. Afternoon.
Pharmaceutics II	Wednesday, February 4. Morning.
Prescription Reading & Posology	Wednesday, February 4. Afternoon.

Practical work commences on Monday, February 9, in the University Laboratories.

Entry forms are available from the Board only. Fee for part or whole of the examination is £3/3/-.

Applications close with the last post on January 8, 1953.

Watch this column for further announcements.

P. E. COSGRAVE, Registrar.
Fifth Floor, Winchcombe House,
52 Bridge Street, Sydney.

INDEX TO ADVERTISERS

Page	Page
Abbott Laboratories (Aust.) Pty. Ltd. Supplement vi	Howard & Sons Ltd. Supplement ii
Addis (Aust.) Pty. Ltd. 1091	Ilford (Aust.) Pty. Ltd. 1081
Allen & Hanburys (Asia) Ltd. Cover 1	Imperial Chemical Industries of A. & N.Z. Ltd. 5
Amalgamated Dental Co. Ltd. 21	Johnson & Johnson Pty. Ltd. 1087
Amalgamated Insurance Ltd. 26	Johnson's of Hendon Ltd. 1049
Andrax Pty. Ltd. 1032	Karitane Products Society Ltd. 17
Anglo-Swiss Drug Co. Pty. Ltd. 1074	Kitchen & Sons Pty. Ltd. J. 1086
Arnold & Co. Pty. Ltd. G. 28	Kodak (Asia) Pty. Ltd. 1023
Australian Cream Tartar Co. Pty. Ltd. 1080	Koko Maricopas Co. Pty. Ltd. 1080
"Australasian Journal of Pharmacy" 21	Lawrence & Co. Ltd. Altd. 1084
Ayrton, Saunders & Co. Ltd. 11	Lazarus, H. 1038
Barker & Son Ltd., Robert 23	Manesty Machines Ltd. 3
Bayer Pharma Pty. Ltd. 1083	May & Baker (Aust.) Pty. Ltd. 1059
Beckers Pty. Ltd. 1098	Merck (North America) Inc. 10
Bristol-Myers Co. Pty. Ltd. 1072	Middleton, M. R. 1085
British Drug Houses (Aust.) Pty. Ltd. 1031	Muir & Neil Pty. Ltd. 1045
British Medical Laboratories Pty. Ltd. 1090	National Brush Co. (Aust.) Ltd. 1070
Burroughs Wellcome & Co. (Aust.) Ltd. Cover 4	Nestle & Anglo-Swiss Condensed Milk Co. 25
Callose & Sons Pty. Ltd., B. 1004	Nicholas Pty. Ltd. 14
Carnegie Chemicals (Welwyn) Ltd. 1081	Official Announcements 3
Chemco (Aust.) Pty. Ltd. 1075	Organon Laboratories Ltd. 1046
Chemists' Account Service 1073	Ortho Pharmaceutical Co. 23
Classified Advertisements 1066	Paisley Distributors 18
Clinton-Williams Pty. Ltd. 1097	Parke, Davis & Co. Cover 3
Coates & Cooper Ltd. 20	Pearce & Co. Pty. Ltd., Wm. 1000
Colgate-Palmolive Pty. Ltd. 1071-1086	Pfizer & Co. (Inc.), Chas. 9
Colonial Sugar Refining Co. Ltd. 15	Pharmaceutical Defence Ltd. 21
Crown White Coats Pty. Ltd. Supplement iv	Potter & Birks Pty. Ltd. 1062
David D. Bull Laboratories 1094	Reckitt & Colman (Aust.) Ltd. 23
Delany & Co., William 3	Rickard Medical Products Pty. Ltd. 1088
De Witt & Co. (Aust.) Pty. Ltd. 12	Rocke Tompsett & Co. Ltd. 1094
Drug Houses of Australia Ltd. 1027-1068	Royco (Aust.) Pty. Ltd. 1080
Druggist Sundries Co. 1074	Saunders & Co. Pty. Ltd., A. 26
Eveready (Aust.) Pty. Ltd. 19	Sigma Co. Ltd. 1041
Faulding & Co. Ltd., F. H. 1068-1102	Sleigh Ltd., H. 1083
Fawns & McAllan 13	Smith & Nephew Ltd., T. J. 8
Felton, Grimwade & Bickford Ltd. 4	Smith Ltd., T. & H. Supplement v
Felton, Grimwade & Durdins Ltd. Supplement i	Taylors Elliott Pty. Ltd. 4
Figaro Chemical Products 1073	Toppin & Sons Pty. Ltd., R. D. Supplement iii
Glaxo Laboratories (Aust.) Pty. Ltd. 7	Trade Press Pty. Ltd. 26
Goya Ltd. 1028	U-Tex Manf. Co. 24
G.P. Pty. Ltd. 1067	Vincent Chemical Co. Pty. Ltd. 1042
Greenhalgh's Pty. Ltd. Cover 2-25	Warner & Co. Pty. Ltd., Wm. R. 6
Green Medical Distributors Pty. Ltd., B. M. 1081	Washington Chemical Co. Ltd. 10
Gregory Steel Products Pty. Ltd. 23	Wyeth, John, & Bro. Inc. 1101
Hillcastle Pty. Ltd. 1083-1083	York & Co. Pty. Ltd. H. 1060-1103
Zeal Ltd., G. H. 18	

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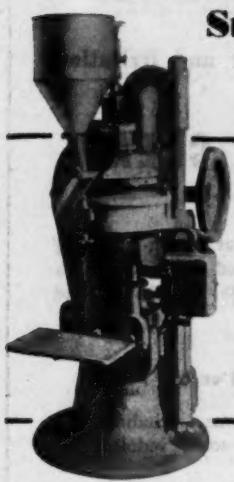
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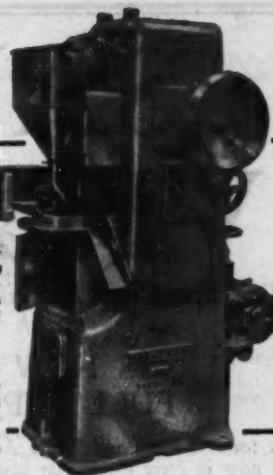
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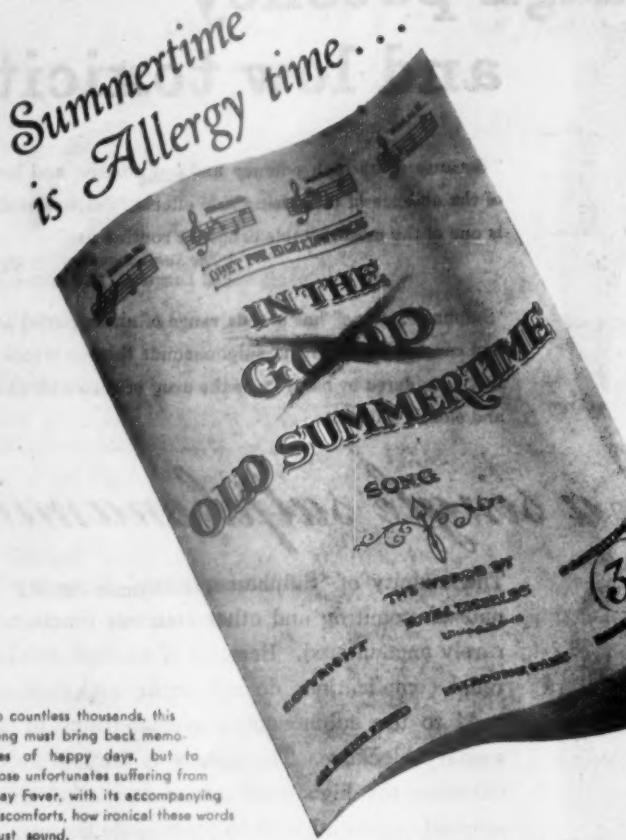
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Editorial

New Series: Vol. 33—No. 395

Old Series: Vol. LXVII—No. 893

November 29, 1952

Are Our Standards High Enough?

THE quality of pharmaceutical practice in Australia is at present under the spotlight of investigation and criticism. This maybe is a good thing. If it should lead to improvement in practice which has been allowed to become lax in some directions, it will be good for pharmacy, for the public and for all concerned.

There is, however, a danger that wrong and damaging impressions will be made by giving undue publicity to the faults of a few pharmacists whose standards of conduct and ethics are faulty.

That is why, when the Director-General of Health in Canberra wrote to us some weeks ago reporting that of 17 prescriptions dispensed by chemists taken from all parts of Australia, 20 breaches of the Pharmaceutical Benefits Act and Regulations were detected, we asked for further information before going into print. On the evidence supplied we were not then prepared to accept and publish the Director-General's statement: "This, I think you will agree, is a very poor reflection on the pharmaceutical profession, and calls for some action."

Further detail has been supplied, and although this does not provide all the data necessary for drawing conclusions on the general standard of pharmaceutical practice in Australia, it indicates that in some cases there has been a degree of laxity in dispensing which should not be tolerated. Dr. Metcalfe states that the report from the senior pharmacist on the test of dispensing which had been undertaken disclosed 10 samples with substantially incorrect proportions. The prescription on which the tests were taken was *Pulv. Bismuth et Calci. Co.* The analyst's report indicated that one sample showed a deficiency of 48.44 per cent. Bismuth and a surplus of 41.30 per cent. of Sodi. Bicarb. Other samples showed deficiencies ranging from 6.15 per cent. to 30.1 per cent. of Bismuth, and one sample showed an excess of 30.36 per cent. Bismuth. The analyst's reports refer to the proportions of the separate ingredients and not to actual quantities.

When a doctor issues a prescription, he should be confident that the drugs prescribed will be supplied in the proportions he has ordered, having regard to the fact that margins of tolerance must be provided to meet the conditions of manipulation and the type of apparatus used in general dispensing practice. Absolute precision cannot be

achieved in the normal routine of dispensing, but this does not excuse haphazard methods which result in the patient receiving a product which does not contain, within reasonable limits, the drugs in the proportions in which they are prescribed.

The details supplied in the letter from the Director-General of Health suggest that in some of the instances quoted a degree of carelessness or even recklessness in technique or manipulation, foreign to the principles which every chemist is taught during his student days, has been allowed to enter.

There are, of course, remedies which can be applied, and no doubt the Department of Health will take appropriate action in cases which it regards as sufficiently serious. It will be commended rather than criticised for this, because the great majority of chemists throughout Australia, as well as the official organisations which represent them, deplore bad or dishonest practice.

We cannot, however, agree with Dr. Metcalfe's view that the few breaches which have been reported constitute "a very poor reflection on the pharmaceutical profession." Seventeen tests from 3000 chemists does not provide for examination of a fair cross-section, and from the results of independent checks which we know to have been made, and which have revealed a high standard of accuracy in dispensing, we would conclude that the chemists selected for the test by the Commonwealth represent a very poor section of the profession as a whole.

It would be unfair and unjust to condemn the whole of pharmacy or to imply that the general standard of practice in Australia was poor on the evidence supplied.

This does not in any way imply that the Journal, or any of the organisations of which it is the official organ, condones or approves of haphazard, unscientific or inaccurate dispensing, even by the few.

If the standard of pharmacy is to be maintained, such practices must be eradicated. We have no doubt that this will be done, and we agree with Dr. Metcalfe when he says "I have no doubt that the great majority of chemists are providing a satisfactory service, but a few thoughtless and careless individuals can undermine the reputation of the whole profession."

THE MONTH

QUOTATION FOR THE MONTH

We should not be misled by advances in technique. To fill a prescription accurately, to prepare a solution for injection so that it is bacteriologically sterile, to dilute a vaccine—all this is the art of the technologist. It is a highly skilled art needing a wide knowledge of basic and applied science. Yet it is essentially a technology. It does not qualify for the honourable title of profession unless it is animated by the spirit of humanity—an understanding of men and women and a fellow-feeling with them. It is only so far as your druggist possesses this quality that he can claim to be a professional man.

From the address by Mr. H. N. Linstead in Philadelphia on August 20 at the American Pharmaceutical Association Centennial Convention Banquet.

NEW POISONS ACT FOR NEW SOUTH WALES

The new Poisons Act for New South Wales presaged by the introduction this month of an amending Poisons Bill in the Legislative Assembly (see page 1054) should receive whole-hearted support. So urgent is the need for scrapping the obsolete and anachronistic Act of 1902 that it is sincerely hoped that nothing will occur to delay the passage of this much-needed amending legislation.

If the Bill is enacted in its present form, the approach to the question of uniformity of Poisons legislation in Australia will be simpler than it has ever been.

Up till now no mechanism has been available in New South Wales Poisons Law to restrict the sale of potentially dangerous drugs and substances to a prescription. The antihistamines, the antibiotics, amphetamine, sulphonamides and others, controlled in all other States, have been distributed practically without restriction in New South Wales because of its defective Poisons Law, and New South Wales alone of all the States had to resort to the expedient of including the barbiturates with the narcotics under the Dangerous Drug control.

Although the new Bill could, in our opinion, be strengthened in several directions, it does put New South Wales in line with other States in the matter of the control of poisons.

The way is now open for a real attempt at uniformity among the States, and we hope that administrative or other difficulties will not be an obstacle to conference on this problem, which is so vital to all interests.

MEDICO-PHARMACEUTICAL LIAISON

Misunderstanding of legal and other obligations of pharmaceutical chemists by medical practitioners has led to embarrassment from time to time, and it is gratifying to learn that Medico-Pharmaceutical Liai-

son Committees, by means of friendly discussion, are tending to break down such misunderstandings.

Following a meeting of the Victorian Medico-Pharmaceutical Liaison Committee, it was resolved that a statement on certain matters relating to prescribing and dispensing should be sent on to the Medical Journal. After agreement had been reached by the two bodies in relation to the statement, it was transmitted as recommended and published in "The Medical Journal of Australia," on November 22. The text of the statement was as follows:—

Relationship Between Medical Practitioners and Pharmacists.

To facilitate exchange of views and promote harmony between the two professions, a Medico-Pharmaceutical Liaison Committee was established in Victoria in 1949.

At a recent meeting several matters which were considered likely to lead to misunderstanding between doctors and chemists were discussed, and, in particular, the committee agreed that the practices referred to below were to be deprecated and should be brought to the notice of the medical profession:—

1. There is a growing tendency in some areas for prescribers to supply to a patient, or instruct a patient to obtain from some source other than the chemist, a drug and take it to the chemist to be incorporated in a prescription, and instances were quoted of prescriptions being marked: "...(drug)... supplied." Pharmacists consider it unsound practice to use in the dispensing of prescriptions any materials which come to them from outside usual trade channels, because of the possibility of contamination and mislabelling, and as the chemist carries the legal liability for what he dispenses, he is quite justified in refusing to accept material brought to him by a customer.

2. Some doctors are issuing prescriptions for a drug, for example, penicillin, and instructing the patient to obtain it from a chemist and make it up into preparations such as eye-drops, ear-drops, etc., in the home. The possibilities of contamination and error are obvious, and the practice is regarded by the committee as undesirable.

3. An instance was reported of a specialist issuing a prescription for potassium iodide with instructions to obtain this substance from a chemist and make it up into a solution. Again, the possibility of error is obvious and the practice undesirable.

SUBSTITUTION CONDEMNED

Substitution of a drug in a prescription for that ordered by the prescriber is a practice which should be condemned because it is illegal, unethical, can be detrimental, and infringes the rights of the owners of registered brand names.

It is interesting, therefore, to find concern in several countries at an apparent tendency to carelessness of chemists in this matter.

A recent issue of the Canadian Pharmaceutical Journal refers to a survey made by pharmaceutical manufacturers in U.S.A. This revealed that from 15 to 20 per cent. of chemists surveyed in the cities from coast

to coast substituted another brand for the brand called for in a prescription. This was followed by a resolution of the American Pharmaceutical Association condemning as unethical the dispensing of a pharmaceutical preparation or brand thereof other than that ordered or prescribed.

Commenting editorially, Dr. L. F. Tice, Editor of the American Pharmaceutical Journal, says:—

"We were amazed and a little stunned when we heard at a recent meeting a report on the extent to which substitution is practised in retail pharmacies. While we knew that some few unscrupulous operators were guilty of this fraud, their number was believed to be no larger than that of the shysters in other professional areas. In this belief we were totally wrong, and it was with no little bitterness and chagrin that we were forced to accept the existence of this pharmaceutical malpractice to an extent that makes us ashamed to be identified with those who hold their professional integrity so lightly."

In Great Britain substitution is regarded gravely and could lead to deregistration.

The Pharmaceutical Journal for October 11, 1952, carries a report of a meeting of the Statutory Committee of the Pharmaceutical Society of proceedings dealing with a case of alleged substitution. It was alleged in this case that on 28 occasions between January 1, 1952, and March 30, 1952, a company and its superintendent dispensed a supply of preparation other than "Syrup Calcedrine" (Abbott), which had been prescribed, and did not mark or cause to be marked on the prescription words indicating that a preparation other than the one prescribed had been dispensed.

After deliberating the case in camera, the Chairman, in the course of a statement to the member, said the actions complained of were regarded as conduct rendering him unfit to be on the register. The Committee had very gravely considered whether it was necessary to impose deregistration upon the member, and whether it should take the action which the statute authorised it to take in relation to the company he represented. It was finally decided, not without considerable doubt, that it was possible in this case not to take that extreme step. The member, he said, would realise that this was a decision in the circumstances which could only be taken by exercising a very considerable degree of leniency.

DANGEROUS DRUGS IN AUSTRALIA

A steep increase in the quantity of Pethidine distributed in Australia, and reports from the United Nations Organisation concerning the consumption of Heroin in Australia, has concentrated attention on the general supervision over the control and use of Dangerous Drugs in Australia. This matter was the subject of discussion at a meeting of the National Health and Medical Research Council at Canberra on November 18.

Reports also disclose that Police Commissioners from every State in Australia, as well as Malaya, New Guinea and Fiji, considered the subject in conference in Canberra during the week.

The following figures relating to the consumption of Heroin have been released. Consumption rate is given in kilograms per million of population:—

Year	Aust.	N.Z.	U.K.
1946	2.42	4.52	1.91
1947	3.30	3.33	1.87
1948	4.68	2.72	2.18
1949	4.30	2.13	2.71
1950	4.52	1.04	2.27
1951	5.00	Not available	

Dr. Hunter, Federal Secretary of the British Medical Association in Australia, commenting on the proposal for banning all Heroin, said the medical profession did not favour this. It was too valuable a drug to be lightly banned. Some patent medicines, he said, contained small quantities of Heroin and the B.M.A. would support a ban on these.

In Victoria a drug section has been established within the Police Department, and has already carried out a number of investigations. The Officer-in-Charge of the Section, Detective Sergeant DeLany, recently addressed members of the Pharmacy Board and Executives of pharmaceutical organisations by invitation. He said that the function of the Police Force was the protection of life and property. The control of Dangerous Drugs was related to the protection of life, and was therefore within the sphere of responsibility of the Police.

In early investigations considerable laxity by chemists in regard to custody and recording of Dangerous Drugs had been observed, and steps were being taken to correct this. The section was not looking for prosecutions, but expected co-operation. Prosecutions would be instituted where breaches of the law were detected.

DERMATOLOGISTS' CONCERN AT EFFECTS OF APPLICATION OF THE SULPHONAMIDES IN SKIN DISEASES

An important expression of opinion concerning potential effects of sulphonamide treatment of skin complaints has been issued by the Dermatological Association of Australia (British Medical Association).

In a letter to the Medical Journal of Australia, published November 22, 1952, the Secretary of the Association advised that at the Annual General Meeting, held on August 28, 1952, it was resolved unanimously that the sulphonamide group of drugs should not be used in compounded or uncompounded form as local applications in the treatment of skin diseases. It was further resolved that the legislature should be approached through the British Medical Association with the object of having these agents in the form of ointments, pastes, etc., listed as preparations to be supplied only on the prescription of qualified medical practitioners.

The communication went on to say that the sulphonamides applied locally were potent skin sensitizers. Resulting hypersensitivity can, and often does, lead to serious widespread dermatoses, including exfoliative dermatitis, a grave illness. It may also render dangerous

the oral and parenteral exhibition of sulphonamides in circumstances where their use is needed urgently.

The communication closes with the statement that the profession as a whole was aware of these dangers, but legislative assistance was needed to safeguard the public against complications which could follow the use of preparations which should be regarded as more dangerous than curative.

KODAK SCHOLARSHIP AWARDED

The Kodak Travelling Scholarship of £1000 has been awarded to Mr. James Gordon Manning of Melbourne. Fourteen applications in all were received. Of these one was submitted from Queensland five from New South Wales, two from Victoria, one from Tasmania, three from South Australia and two from Western Australia.

The applications were in the first instance submitted to sub-committees appointed by State societies, who in turn forwarded a recommendation to the Federal Council of Societies. The Executive of the Federal Council met in Melbourne during the month and named Mr Manning as the successful applicant.

The terms and conditions of this valuable award require the applicant to spend at least 12 months out of Australia for the purpose of carrying out a study of the methods or conditions of pharmaceutical practice, including manufacture, teaching or research; to submit to the Federal Council periodic reports on this work; and by arrangement after completion of the project to deliver a series of lectures or addresses in two or more States of the Commonwealth. The successful applicant is also required to give an undertaking that he will return to Australia and remain in active association with pharmacy for at least two years after the expiry of the scholarship.

Our congratulations are extended to Mr. Manning, who is a nephew of Mr. Nigel C. Manning, Lecturer in Pharmacognosy at the Victorian College of Pharmacy. Mr. J. C. Manning was born in Sydney in 1926, educated at the Sydney Grammar School and served with the A.I.F. in World War II for a period of two and a half years. He matriculated in Sydney in 1947 and has had a particularly successful career in pharmacy. In his first year at the Victorian College of Pharmacy he won the Harry Shillinglaw Scholarship and in the second year the Scott-McGibbons Scholarship. These prizes he followed by winning the Nicholas Bursary, the Silver Medal for *Materias Medica*, the Sigma Prize for Organic Chemistry and the President's Prize for Pharmaceuticals in his third year, and completed his course by taking the Gold Medal and Kodak Prize at the end of the fourth year.

Mr. Edgar Rouse, Managing Director of Kodak (A'Asia) Pty. Ltd., met members of the Executive of the Federal Council of Societies after the award had been made, and was able to congratulate the winner personally.

The benefits to pharmacy of the award of scholarships of this kind are not easily evaluated. Experience gained and applied to the furtherance of pharmacy in Australia could be of untold worth. It is to be

hoped that the precedent having now been set, other organisations will follow the example of Kodak in providing facilities for young Australian pharmacists to undertake investigations in the interests of pharmacy overseas.

THALLIUM IN THE NEWS

Following the recent murder trials in N.S.W. Thallium has been featured in the headlines of practically every newspaper in Australia, and questions about control of the drug have been asked in the Houses of Parliament in various States. Proposals have been made that the use of Thallium in any preparation should be entirely banned.

Although there is no direct evidence that the later poisonings by Thallium are the result of the earlier prominence given to the name of the poison, past experience has shown that suppression of the names of poisons enjoying popularity for a period has brought about a decrease in their improper use. The publicity given to Thallium is therefore regrettable.

QUALIFIED CHEMISTS IN HEALTH SERVICE

Assurance by Sir Earle Page in House.

A basic point of Guild policy in relation to the National Health Service was reaffirmed by the Minister for Health (Sir Earle Page) in the House of Representatives on October 10.

In the debate on the Pharmaceutical Benefits Bill 1952 (which provides for the setting up of disciplinary committees of doctors and of chemists to prevent abuses) Mr. Haworth, Liberal member for Isaacs (V.), who is himself a Guild chemist, asked:-

"To ensure that these committees will always work most efficiently, will the Minister undertake to provide in the consolidated health legislation that the director of pharmaceutical services and his deputies in the States will always be qualified chemists, and never laymen?"

Sir Earle Page replied: "That is really our intention."

RETAIL TRADE STATISTICS

Retail trade statistics issued by the Commonwealth Bureau of Census and Statistics show an overall increase of 3.2 per cent. for the quarter ended September 30, 1952, over the corresponding period of 1951.

There are, however some significant drops, e.g. clothing, drapery, etc., decrease of 5.1 per cent.; hardware, decrease of 1.3 per cent.; electrical, decrease of 21.9 per cent.; furniture, decrease of 18.2 per cent. Beer, wine and spirits lead the increases with 17.1 per cent.

"Chemists' goods" are included in the group "other goods," which shows an increase of 2.1 per cent.

The figures given are estimates only, but are based on returns covering approximately 30 per cent. of all retail sales in Australia.



EDITED BY A. T. S. SISSONS, B.Sc. F.P.S.

BRITISH PHARMACEUTICAL CONFERENCE, 1952

NOTTINGHAM MEETING.

SYMPOSIUM SESSION.

(Reprinted from *The Pharmaceutical Journal*, September 13, 1952.)

RECENT DEVELOPMENTS IN THE PHARMACY OF ANTIBIOTICS

Contribution by W. A. Woodard.

The Pharmacy of Antibiotics.

(Abstract.)

Of all the antibiotics discovered, none is so extensively used in this country as penicillin. A development of considerable importance occurred at the beginning of 1947, when pure penicillin — as benzylpenicillin or crystalline penicillin G — first became available on a commercial scale in Britain. Increased thermostability and reduced hygroscopicity constitute its main advantages, and these qualities have eased the problems of the manufacturer, have made it possible to embark on universal distribution of the dry salts with an extended life of three years, and have enabled the research pharmacist to formulate products that retain their potency in tropical as well as in temperate climates.

Penicillin.

Although benzylpenicillin in the dry state is stable, its keeping qualities in aqueous solution are poor. The general consensus of opinion is that buffered solutions of benzylpenicillin retain their potency for significantly longer periods than unbuffered ones, whether stored at ambient temperatures or in the refrigerator. Prolonged-acting systemic preparations containing procaine penicillin G, fall into three categories. Firstly, there are the simple and compound preparations in oil. Although it is a marked improvement on the earlier arachis oil-beeswax formulation, procaine penicillin in oil presents difficulties, because the salt on standing separates from the oil. Added aluminium stearate was found to provide a suspension of greatly improved physical stability and delayed absorption effect.

Although the duration of penicillin in the blood is prolonged after injections of procaine penicillin in oil with aluminium stearate, the peak concentration is low. This led to the idea of supplementing the sparingly soluble procaine salt with a dose of soluble penicillin G sodium or potassium. More recently, it has been shown that the blood concentrations obtained by the addition of pectin-treated crystalline potassium peni-

cillin gave higher maximum levels than those obtained by the addition of the potassium salt alone.

Aqueous Suspensions.

Present-day use of dry procaine penicillin for aqueous suspension is largely confined to those preparations containing a supplement of the soluble sodium or potassium salts of benzylpenicillin and a suitable buffering agent. The low solubility of procaine penicillin G in water has been turned to advantage in formulating ready-prepared suspensions of the salt. Although procaine penicillin is relatively stable in high concentrations in water it is not sufficiently so to withstand the exacting conditions demanded by commercial practice. The addition of a small excess of the cation procaine (as soluble salt), however, results in a significant reduction in the solubility of the procaine penicillin, thereby slowing-down the rate of decomposition.

The utility of the sparingly soluble procaine benzylpenicillin lent considerable impetus to the search for similar slow-release salts, and many new insoluble types — especially amine salts — are now being developed. One of these is the penicillin salt of N,N'-dibenzylethylenediamine (DBED), which is nearly insoluble in water. Pharmacological and histological studies in animals have shown that it compares very favourably with procaine penicillin, and studies in man have been equally promising. Another recent report deals with the penicillin salt of N-methyl-1,2-diphenyl-2-hydroxy-ethylamine (1-phenamine penicillin G). The free base itself has been shown to possess anti-allergic properties apparently unrelated to true anti-histaminic action.

Selective Tissue Concentration.

Recently the hydroiodide of the diethyl ester — penicillin G diethylaminoethyl ester hydroiodide — has been prepared and has aroused widespread interest because, besides having a marked depot effect, it was found to exhibit the remarkable property of concentrating penicillin in lung tissues, especially when these are inflamed.

Oral Preparations.

Despite the seemingly inevitable disparity between effective oral and parenteral dosage, there is increasing appreciation of the fact that oral administration may be justified because of its extra convenience. The most

ARTICLES

- Recent Developments in the Pharmacy of Antibiotics.
- Antibiotics in General Practice.
- Streptomycin.
- Changes in the Hydrocyanic Acid Content of Chlorodyne on Storage.
- The Anti-pernicious Anæmia Factor.
- Isonicotinic Acid Hydrate.
- Infusion of Dextran Solution.
- High Penicillin Levels with Benemid.
- Phenylbutazone (Butazolidin) — New Anti-arthritis Drug.
- "Elocaine," a New Non-narcotic Anæsthetic.

widely used presentation is the tablet made of the sodium or potassium salt of benzylpenicillin. The essential criteria for a stable and otherwise acceptable tablet are: (1) Simplicity of formulation with exclusion of all other ingredients except for a trace of lubricant, and, where necessary, an inert and non-hygroscopic filler; (2) control of moisture (preferably 0.5 per cent.); (3) rapid disintegration.

The life of dispensed solutions is restricted to seven days, during which they must be stored in a refrigerator. It, therefore, follows that these preparations can only enjoy widespread application in countries such as the United States, where practically all members of the community have easy access to a refrigerator. The most important advance in this field in recent years has stemmed from the development of new insoluble salts of penicillin, such as N,N'-dibenzylethylenediamine dipenicillin G. The combined advantages of low solubility, stability and absence of taste enable this salt to be presented as a palatable ready-to-use oral suspension that is said to be stable for 18 months at normal temperatures.

Streptomycin and Dihydrostreptomycin.

Streptomycin and dihydrostreptomycin are normally presented in rubber-capped vials as amorphous or crystalline solids. Except for very dilute solutions, saline is contra-indicated as a solvent because of the risk of irritation from excessive hypertonicity. Stabilised aqueous solutions of dihydrostreptomycin sulphate are available in some parts of the world. These are said to retain their potency for 12 months at ordinary temperatures. Several contain procaine penicillin as well as dihydrostreptomycin, thereby giving a widened range of antibacterial activity. Dry mixtures of streptomycin or dihydrostreptomycin — or both — with penicillin (sodium or procaine salts, or both), for extemporaneous dispensing, are also coming into use.

Chloramphenicol.

Chloramphenicol is active when administered orally. Other routes of administration are used only when high blood levels are required quickly or when a patient is unable to take the drug by mouth. For children, a comparatively tasteless ester — chloramphenicol palmitate — has been specially developed. Absorption is slightly slower with this preparation, because the ester must be hydrolysed in the alimentary tract before the chloramphenicol can be absorbed. The low solubility of chloramphenicol in water complicates the preparation of parenteral dose forms. However, solutions in acetyltrimethylamine may be diluted with water, saline or dextrose solution without precipitation. Care must be taken to add the antibiotic solution to the diluent and below its surface.

Aureomycin.

Aureomycin hydrochloride is customarily administered by mouth. Anorexia, nausea and vomiting are common sequelae; to prevent them all the well-known antacids and buffering agents have been tried. Some of these relieve the symptoms by simply reducing absorption of the aureomycin. A recent report describes the successful use of tablets incorporating the antibiotic and antacid in the same preparation. In exceptional cases it may be desirable to administer aureomycin intravenously. A leucine buffer was formerly employed for this purpose, but has since been replaced by sodium glycinate because of the tendency of the former to cause thrombophlebitis. Intramuscular injections cause local pain and irritation and are not used. A solution suitable for intrathecal use may be prepared by mixing aseptically immediately before use 1 ml. of a 1 per cent. solution of aureomycin hydrochloride with 9 ml. of a specially prepared solution of sodium glycinate. The final solution has pH of 7.2-7.4. It may be cloudy, owing to precipitated aureomycin, but apparently this is without adverse effect.

Lozenges containing 15 mgm. of aureomycin hydrochloride are used to supplement oral systemic therapy

in the treatment of mouth and throat infections. Ophthalmic drops are prepared by adding water to a mixture of the hydrochloride, sodium borate (buffer) and sufficient sodium chloride to render the solution isotonic. Solutions should be recently prepared. Ear-drops in a 5 per cent. solution of benzocaine in propylene glycol are stated to be stable for seven days at 15 deg. C. For skin infections, 3 per cent. aureomycin hydrochloride in soft paraffin or Carbowax bases has been used with success. An ointment containing 30 mgm./gm. is available commercially.

Terramycin.

In the dry state both the base and the hydrochloride are stable for long periods at room temperature. Disodium terramycin is less stable and darkens in colour at room temperature. Stability in aqueous solution is largely a function of pH. Terramycin is most stable in acid solutions; at pH 1.0-2.5 solutions are stable for at least 30 days at 25 deg. C. Alkaline solutions are less stable. It is well absorbed when given by mouth, usually in capsules or as a solution or suspension in a flavoured vehicle. A proprietary elixir containing 250 mgm./ml. (as hydrochloride) in a buffered diluent with 20 per cent. of alcohol, has a pH of about 2.5 and a life of two weeks at room temperature. A more concentrated form is available for administration to infants as drops. An oral suspension of the base is also provided, with the same potency as the elixir, but containing no alcohol. The pH is 5.6, which reduces the period of storage to one week.

A method of preparing a satisfactory intravenous injection of terramycin has recently been described. It follows the same pattern as that for aureomycin, sodium glycinate being used as a buffer. As for aureomycin, ophthalmic solutions (about 0.5 per cent.) are prepared extemporaneously from dry mixtures of terramycin, sodium borate and sodium chloride. The resultant solutions are said to be stable for two days in the refrigerator. An eye ointment containing 0.1 per cent. of terramycin in a soft paraffin base has been available for some time. Recently, stable sugar-coated tablets of terramycin base have been introduced, with the same potencies as capsules.

ANTIBIOTICS IN GENERAL PRACTICE

Contribution by J. O. Davidson.

(Abstract.)

Although our connection with antibiotics is limited to penicillin, streptomycin and chloramphenicol only, a very large number of preparations of these three substances exists. We have, therefore, to be prepared by knowledge, equipment and supplies to meet an ever-widening demand, quite different from that in the specialised field dealt with by the hospital service.

Penicillin.

Penicillin occurs in several closely-related forms, of which the best known and most important is probably penicillin G or benzylpenicillin, the soluble sodium salt being the form most frequently met with in general practice.

AQUEOUS INJECTION. Initially, penicillin was injected as a sterile, aqueous solution of from 20,000 to 30,000 i.u./ml. at intervals of from three to four hours over a five-day period. The concentration was later increased to 200,000 i.u./ml. and, on occasion, 500,000 i.u. in 2 mils has been administered at from four to twelve-hourly intervals.

OILY INJECTION: To avoid the dosage frequency of the aqueous solution, oily injection of penicillin B.P., at a concentration of 300,000 i.u./ml. was introduced. Although its high viscosity and liability to cause irritation tend to reduce its popularity, it is still favoured by some practitioners.

PROCAINE PENICILLIN: This is a sparingly soluble salt, which is suspended in sterile water before use at a concentration of 300,000 i.u./ml. The suspension retains its potency over relatively long periods.

FORTIFIED PROCAINE PENICILLIN contains 300,000 i.u. with the addition of 100,000 i.u. of penicillin G.

OTHER SUSPENSION INJECTIONS: Many other suspension injections, under various trade names, are available for special conditions. Chief among them is a hydroiodide ester which produces a relatively high concentration in the lungs. Another preparation reduces the administration frequency to 24 and even 48-hour intervals.

TABLETS: Penicillin tablets, administered orally when injections are undesirable, usually contain from 100,000 to 200,000 i.u. This is a wasteful and expensive method, as five times the injectable dose must usually be given.

LOZENGES, GUMS: About six years ago a dentist friend suggested the use of penicillin chewing gums. At that time the normal base, prepared chicle gum, was not readily available. I found that a mixture of hard and soft white paraffin, after suitable heat treatment and when sweetened with soluble saccharin and flavoured with oil of peppermint, gave a satisfactory chewing material in which to incorporate penicillin.

EYE-DROPS: Penicillin eye-drops, normally containing 15,000 i.u. in 110 minims, should be stored in a cool place and used within seven days.

INSUFFLATION: An aural insufflation containing 5000 i.u./gm. of sterile sulphathiazole is frequently required for use in a Cade's insufflator.

OILY NASAL DROPS: These are also prescribed at a concentration of 5000 i.u./ml, prepared by dissolving the penicillin in a small amount of distilled water, adding 1 per cent. of phenoxetol as a preservative and making up to volume with Eucerin oil.

CREAMS, CONES, DRESSINGS, OINTMENT, PESSARIES: Most of these are now available commercially.

STREPTOMYCIN

Streptomycin is used either as the hydrochloride or the sulphate or as a double salt formed with calcium chloride. Dihydrostreptomycin B.P., which is formed by the catalytic reduction of streptomycin, is used as the hydrochloride or as the sulphate. Its properties, antibacterial activity and therapeutic efficiency, are similar to those of streptomycin, and it was thought for a time that this modification considerably reduced the toxicity of the drug. These two substances differ chemically and are not interchangeable.

AQUEOUS INJECTION: A sterile aqueous solution of streptomycin-calcium chloride complex is most frequently required, the usual strength being either 0.5 gm. in 2 mils, or 1.0 gm. in 5 mils. It is given intramuscularly in the treatment of tuberculosis, either alone or simultaneously with p-aminosalicylic acid.

EYE-DROPS contain 10 mgm. of streptomycin/ml. of sterile normal saline.

EYE-OINTMENTS contain 0.5 per cent. of the drug in sterile eye ointment base.

SOLUTION OR POWDER FOR WOUNDS OR ULCERS: Streptomycin is used either as a 5 per cent. solution or as a 5 to 10 per cent. powder in sterile sulphadiazine.

CREAM: A 5 per cent. cream is sometimes prescribed in a base similar to that used for penicillin cream.

PESSARIES containing 100 mgm. of streptomycin together with 50,000 i.u. of penicillin may be prepared with oil of theobroma. The streptomycin must be finely powdered to avoid the possibility of small crystals gravitating to the points of the pessaries before they set.

Chloramphenicol.

Chloramphenicol occurs as whiteish crystals having a very bitter taste. It is only slightly soluble in water,

but dissolves readily in alcohol and in propylene glycol giving stable solutions. It is absorbed well after administration by the mouth.

CAPSULES: It is given in the form of hard capsules each containing 250 mgm. of the drug, the recommended daily doses being 30 mgm.; 75 mgm. or 100 mgm./kg. bodyweight in suitably divided doses.

PALMITATE SUSPENSION: The drug may be given in this form to infants and children unable to swallow capsules. This suspension of a non-bitter derivative hydrolyses in the small intestine, liberating chloramphenicol. Two teaspoonsful are equal to one 250-mgm. capsule.

SUPPOSITORIES may be made, each containing 125 mgm. of the drug, using cocoa butter as the base.

EYE-DROPS may consist of either a 0.25 per cent. solution (saturated solution) or a 0.5 per cent. borate-buffered solution of the drug.

EYE-OINTMENT containing 1 per cent. in oculentum base, is also available.

CREAM: A cream may be produced by the admixture of 1 per cent. of the drug with hydrous emulsifying ointment.

DUSTING POWDERS for wounds or aural insufflation contain 2 to 3 per cent. of the drug in sterile lactose. Where any but very small quantities are being prepared, it is advisable to dry the lactose prior to sterilisation by dry heat.

EAR-DROPS: A simple 10 per cent. solution in propylene glycol is suitable.

USE IN DENTISTRY: Recently, a suspension of 1 gm. each of chloramphenicol, streptomycin and sodium caprylate with 3 mils. of propylene glycol has been required for insertion into inflammatory root areas of teeth via the root canal. The function of sodium caprylate is to inhibit the action of the yeasts, which are unaffected by the antibiotics.

CHANGES IN THE HYDROCYANIC ACID CONTENT OF CHLORODYNE ON STORAGE

By H. A. Glastonbury.

(Abstract of paper presented at the British Pharmaceutical Conference, 1952.)

During an investigation into the possibility of the loss from Tinct. Chlorof. et Morph. B.P.C. of the volatile constituents after manufacture, a considerable decrease in the hydrogen cyanide content was observed in specially sealed control samples. This decrease was larger than could have occurred by volatilisation during the short periods for which samples were necessarily open during the experiments. Two check samples drawn from—

	Time in days	Loss per cent.
1. Glass container	6	14
	14	39
	37	63
2. Glass container	5	16
	13	39
	21	51
3. Polythene container	4	13
4. Ammonium chloride, 0.1 per cent. added	4	12
	17	40
5. Ammonia, 0.1 per cent. added ..	0.05	30
	0.10	60
	0.15	80
	1	90
	3	95
6. Chlorodyne solution prepared with- out treacle	6	10
	14	26
	23	33
	28	42

stock manufactured at the beginning of this year, and three samples of unknown age purchased from three

other companies were found to have apparently lost between 80 per cent. and 93 per cent. of the theoretical hydrogen cyanide content. The three most important reactions which could lead to an apparent loss of hydrogen cyanide are (a) polymerisation, (b) hydrolysis, and (c) addition to reducing sugars.

The formula for chlorodyne requires 0.125 per cent. of hydrogen cyanide. Aqueous solutions of hydrogen cyanide of this concentration and freshly prepared chlorodyne solutions were treated with various reagents, and stored in flasks having ground-glass stoppers, which were sealed with soft paraffin after each withdrawal of samples for periodic determination of hydrogen cyanide. The reducing sugar content of the treacle and liquorice used and the ammonia content of the liquorice and of a chlorodyne sample before and after storage were also determined. The table shows the loss of hydrogen cyanide from chlorodyne on storage, and the effect of container, constituents and added reagents.

The results indicated that there was no loss of hydrogen cyanide by volatilisation from the treated solution under the conditions investigated and neither acid hydrolysis nor ammonia-catalysed polymerisation affecting the hydrogen cyanide content, at least in the early stages. The rate of the addition reaction with reducing sugar was small in the presence of mineral acid or ammonium salt, but the presence of ammonia increased the rate of reaction, probably by its catalytic effect on the mutarotation of glucose and on the addition reaction. The loss of hydrogen cyanide in chlorodyne was progressive and the rate gradually declined with decreasing concentration. Storage in an inert (polythene) container had no retarding effect and, although the addition of ammonium salt did not accelerate the reaction, the effect of free ammonia was striking. The ammonia recovered by distillation from alkaline solutions of a sample of chlorodyne increased from 0.0124 per cent. when freshly prepared to 0.076 per cent. after storage for one month, an increase of 0.062 per cent. The hydrogen cyanide content of the sample fell from 0.125 per cent. to 0.034 per cent., a decrease of 0.091 per cent. The reducing sugar content, calculated as dextrose, of the samples of treacle and liquorice used, was 21 per cent. and 8 per cent. respectively. The ammonia content of the liquorice was 0.14 per cent. Thus, there is a sufficiently large excess of each component to permit an ammonia-catalysed addition reaction with the hydrogen cyanide. The experimental evidence suggests, therefore, that hydrogen cyanide is removed by reaction with the carbonyl group of dextrose catalysed by ammonia derived from the liquorice extract.—*Pharm. J.*, September 27, 1952.

THE ANTI-PERNICIOUS ANAEMIA FACTOR

By I. E. Hutchinson,

Medical Department, Boots Pure Drug Company Ltd.

The search for the anti-pernicious anaemia principle makes one of the most fascinating stories of modern medicine. Prior to 1925, the various attempts to cure pernicious anaemia were based on theories that the disease was due to infection, poisoning or new growth. In that year Whipple and his colleagues emphasised that such foods as liver deserve serious consideration in the clinical management of blood disease. Clinical application of the results of Whipple's experiments was carried out by Minot and Murphy, who, in 1926, reported that during a routine clinical trial of liver in the treatment of various anaemias, the effect in pernicious anaemia was most marked. This was the most outstanding event in the history of pernicious anaemia since the early descriptions of the disorder by Combe, Addison and Biermer. Even now the effect of liver on a patient with pernicious anaemia is as dramatic as the effect of sulphonamides or penicillin on infection.

Liver Extracts.

Patients were soon nauseated by the daily amount of raw liver they had to eat, and, in order to minimise the unpleasantness of the treatment, a search commenced for the active factor in liver. A year after the introduction of liver therapy, Cohn produced his famous "Fraction G," which was a water-soluble substance obtained after protein precipitation. At the time "Fraction G" was thought to be a polypeptide, and its extraction led to investigations which have resulted in the large-scale commercial manufacture of the liver preparations on the market today. From this substance a solution was prepared for parenteral use, at first in crude form and later in higher concentration. It was soon discovered that liver extracts were just as efficacious as whole liver, and attempts were made to isolate the specific substance responsible for their beneficial effects. Subba Row isolated four factors which contributed to the activity of Cohn's "Fraction G": there was a main factor, of unknown chemical composition, together with three other substances, tyrosine, a purine complex, and a peptide which, though inactive themselves, enhanced the activity of the main substance. It is interesting to observe that some 20 years later Jacobson and Bishop demonstrated that the therapeutic action of liver extract in pernicious anaemia depends on the presence of vitamin B12 as primary factor, and five chemically distinct accessory factors, which are by themselves inactive, viz., tyrosine, tryptophan, xanthopterin, guanosine and peptide.

Such was the position, more or less, at the outbreak of the Second World War.

Folic Acid.

During the years 1939 to 1945 certain concentrates were prepared from liver and yeast. These substances were found to promote growth of *Lactobacillus casei* and other micro-organisms and also to enhance the growth of chicks fed on deficiency diets. They were accordingly named "L. casei factor" and "vitamin Bc." It was soon shown that these substances were identical, but there was still confusion owing to other research teams coining their own names for what, at that time, appeared to be distinct, if related, entities. Names like vitamins B10, B11, and M, factors R, S, U and Norit-eluate appeared in reports. Many difficulties were smoothed out by the discovery of vitamin Bc conjugates; factors from yeast, fully active in chick tests, were found to be nearly inactive for the growth of *L. casei*, but activity in this direction was produced by treating the factors with certain enzymes. The fact that only part of this activity was released by some of the enzymes was found to be due to the presence of an enzyme-inhibitor in yeast extracts and similar substances.

Further work led to the recognition of one of the conjugates in the residues of fermentation processes. It was later shown that certain enzymes broke down this conjugate into folic acid and two molecules of glutamic acid. Similarly, another conjugate was split up into folic acid and six molecules of glutamic acid. We are now aware of a group of folic acid substances, i.e., the natural *L. casei* factor from liver (folic acid), the fermentation *L. casei* factor (pteroprotein), the vitamin Bc conjugate (which is converted to natural folic acid by an enzyme, vitamin Bc conjugase) and pteroic acid, a synthetic substance. The chemical study of folic acid revealed the presence of a pteridine nucleus linked to a molecule of p-aminobenzoic acid, which, in turn, is linked to a molecule of glutamic acid. Synthesis of the conjugates followed, the substances folic acid, vitamin Bc and *L. casei* factor were proved to be identical, and all the other factors were believed to be glutamic acid conjugates.

The synthesis of folic acid directed attention to its use in anaemia, and at one time it was claimed to be the anti-pernicious anaemia principle. Since patients with pernicious anaemia respond to doses as low as 1 mg. daily, it appeared likely that in these subjects

there was defective absorption or defective use of the conjugates. It is interesting to observe that enzymes (conjugases) capable of splitting the conjugates are present in the tissues of both normal persons and those with pernicious anaemia. Investigations into the part played by the conjugase inhibitors present in many natural sources of folic acid conjugates showed that the greater the amount of conjugase inhibitor in the conjugate, the less free folic acid was excreted. Failure to liberate the free acid was then found to be characteristic of persons with pernicious anaemia, but when treated with liver extract these patients were able to correct this possibility. In addition, the urinary excretion of folic acid in these patients was increased after the administration of liver extracts, and it has also been observed that in certain cases of sprue, collateral administration of folic acid conjugate and liver extract produces a larger urinary folic acid level than the conjugates alone.

From the clinical point of view folic acid has the power of relieving initially the haematological signs and general symptoms of megaloblastic anaemias, but it does not relieve or even prevent the nervous involvement of pernicious anaemia and, consequently, its identity as the anti-pernicious anaemia principle was disproved. Nevertheless, folic acid is an important factor in red cell production, although its specific action is still obscure.

Vitamin B₁₂.

The shortcomings of folic acid revived interest in the liver factor, and, in 1948, a red crystalline compound named vitamin B₁₂ was isolated independently in Britain and America. Microbiological techniques, which played so large a part in the development of folic acid, were equally important in the isolation and assay of vitamin B₁₂. This substance was soon recognised to be one of the most biologically active substances known. When clinical trials showed that it produced improvement in cases of pernicious anaemia, including the associated nervous manifestations, vitamin B₁₂ was immediately claimed as the long-sought anti-anaemic liver principle.

Vitamin B₁₂ is one of a group of naturally occurring compounds of, as yet, unknown structure. It occurs as dark red crystals containing cobalt, phosphorus, carbon, nitrogen, oxygen and hydrogen. The cobalt is held in very firm combination and prolonged acid hydrolysis of the vitamin appears to result in the liberation of phosphoric acid, ammonia, dimethyl-benzimidazole and other degradation products, the largest part being a nitrogenous acid red cobalt complex, which has not been definitely identified. The importance of amino-alcohols, which occur in compounds like choline and lecithin, has been known for a long time, and it is, therefore, interesting to find 1-amino-2-propanol as part of the vitamin B₁₂ molecule. There is no evidence of a pterin-like structure and consequently, there appears to be no chemical relation to folic acid. The vitamin has been proved not to be a polypeptide, and is, in fact, suspected of having a pyrrole or porphyrin-like form, being related structurally to chlorophyll and the pigment of haemoglobin. Recent studies have demonstrated the presence of a cyanide group co-ordinated with the cobalt atom, but this does not imply vitamin B₁₂ is toxic. On the contrary, its toxicity is exceptionally low, doses corresponding to 112 million times the daily human dose having been given to mice without ill effect.

The precise mechanism of the physiological action of vitamin B₁₂ is not clear; many signs point to its playing a role in the synthesis of cellular nucleic acids and to its action being similar to that of a co-enzyme. From the clinical viewpoint vitamin B₁₂ has been shown to produce a reticulocytosis and increased red cell count with single doses of 2.5 µg. given intramuscularly. The vitamin is at least ten thousand times more powerful than the most refined liver extract and is one of the most potent therapeutic substances known.

Vitamin B₁₂ has been used with variable success in many types of megaloblastic anaemia, but there is no

doubt that the substance is of most use in classical pernicious anaemia since it causes the bone marrow to resume normal red cell maturation, and, in addition, prevents or arrests the neurological involvement often associated with this disorder. Since vitamin B₁₂ can be given in a precise dosage, thereby eliminating some of the uncertainties which attach to liver extracts, and since patients who are sensitive to liver preparations can be satisfactorily treated with vitamin B₁₂ without fear of untoward reactions, the vitamin has certain advantages over liver extracts in the treatment of pernicious anaemia.

Vitamin B₁₂ is effective orally only when relatively high doses are given, but amounts quite ineffective by themselves are made active when the vitamin is incubated with normal gastric juice, when both substances are ingested simultaneously or when the gastric juice is given shortly after the vitamin. Since oral treatment is always preferable to injections, particularly when treatment is likely to be lengthy, a preparation containing vitamin B₁₂ and hog stomach extract has been clinically tested. Reports indicate that this mixture, which theoretically has the properties of both the extrinsic and intrinsic factors, is haematologically active in cases of pernicious anaemia.

Vitamin B₁₂ is not the ideal preparation for treating anaemias other than pernicious anaemia. Absorptive defects, malnutrition and certain pregnancy anaemias which respond to folic acid are often refractory to vitamin B₁₂. On the other hand, megaloblastic conditions which do not respond to folic acid are equally refractory to vitamin B₁₂. The interrelation of folic acid and vitamin B₁₂ is very complex and cannot be dealt with in the space at our disposal, except to say that both are probably concerned in building up precursors of nucleic acids, the vitamin B₁₂ group perhaps acting in parallel as coenzymes in the synthesis of pyrimidines and purines.

Vitamin B₁₂ Complex.

Vitamins tend to occur in chemically related varieties, and, as one might expect, there seems to be a vitamin B₁₂ complex. Several other red factors, besides vitamin B₁₂ itself, have already been isolated from liver. It seems likely that, in contrast to the folic acid group, the molecules of each substance of the vitamin B₁₂ group are chemical modifications of vitamin B₁₂ itself.

The material isolated originally as vitamin B₁₂ contains a cyano group which may be dissociated, e.g., under the influence of light in weakly acidic solutions, but the addition of potassium cyanide to this product has been shown to reverse the reaction. Evidence has been presented to indicate that the cyano group is bound co-ordinatively to the cobalt atom, and it was therefore proposed that the name cobalamin be assigned to all of the molecule of vitamin B₁₂ except the cyano group. The original vitamin B₁₂, therefore, is known as cyanocobalamin. In the vitamin B₁₂ complex substitution for this cyano group has produced such compounds as sulphatocobalamin, chlorocobalamin and other derivatives, and according to this system of nomenclature, vitamins B_{12a} (which is identical with vitamin B_{12b}) and B_{12c} are known as hydroxocobalamin and nitrocobalamin respectively.

It is now about four years since the vitamin B₁₂ group became available for clinical trials and therapeutic use, and during this time concentrates containing mixtures of vitamins B₁₂, B_{12a} and other cobalamins have been shown to be very effective in correcting both the haematological and neural lesions in pernicious anaemia. The original material was isolated from liver, but it was soon discovered that the vitamin is produced by many micro-organisms. At present, vitamin B₁₂ and other members of the group are being produced commercially from various microbiological sources, e.g., as a by-product of the manufacture of antibiotics.

From the practical viewpoint, we possess in vitamin B₁₂ a potent means of treating pernicious anaemia.

Being the most active constituent of liver one would expect it to produce results resembling those given by liver extracts, and we think it fair to say that vitamin B_{12} and certain of its derivatives are the active constituents of highly refined liver extracts.

Protein Synthesis Factor.

In spite of the success with which vitamin B_{12} has been used it is still probably too early to claim it as the only active principle in liver. Many haematologists consider the evidence to indicate that some liver extracts produce a greater haemopoietic effect than is accounted for on the basis of their vitamin B_{12} content.

With few exceptions all cases of macrocytic anaemia have a lowered prothrombin level, and it has been shown that this persists in pernicious anaemia patients after treatment with vitamin B_{12} , highly refined liver extracts and folic acid; this condition is also refractory to vitamin K, but crude liver extracts or liver by mouth return the prothrombin level to normal. The substance responsible for this effect has been obtained from liver; it has no antianaemia effect, but it does restore the normal prothrombin level irrespective of whether it is given before or after anti-pernicious anaemia treatment.

Experiments have shown that in 30 to 40 per cent. of red cells macrocytosis still persists after normal blood values have been obtained with purified liver extracts, vitamin B_{12} or folic acid. The diameter of these large cells is increased and the thickness reduced in the dried state; the volume is normal and there is increased resistance to hypotonic solutions. These macrocytic cells contain haemoglobin, which is characteristic of the foetal type, and it seems that this pathological material is caused by a disturbance in the globin content; the shape of the red cells in blood smears is explained as a physical phenomenon caused by haemoglobin abnormality. There seems to be a close correlation between the low concentration of prothrombin and the form of pathological haemoglobin which gives rise to macrocytosis, the underlying abnormal mechanism probably being disturbed protein synthesis in the liver. Patients with so-called pernicious anaemia who responded initially to vitamin B_{12} and later became refractory to increased dosage, supplementary folic acid, pyridoxine, iron and vitamin C have been found to be deficient in protein. The liver factor to which these patients respond and which also corrects the lowered prothrombin level in pernicious anaemia has provisionally been called the protein synthesis factor.

Citrovorum Factor.

This brief review would not be up to date if we omitted a reference to the citrovorum factor or folic acid, a substance related to folic acid, occurring in therapeutic liver extracts. The link between microbiological growth factors and haematological agents was demonstrated by folic acid and vitamin B_{12} and it is not surprising that the factor which stimulates the growth of Leuconostoc citrovorum is active haematologically and clinically providing the dose is sufficiently large. It has been shown that the citrovorum factor has a similar maturing effect to folic acid on megaloblasts in marrow culture, and it has also been shown to overcome the action of the maturation inhibitor which is present in the serum of untreated pernicious anaemia patients.

Recent studies indicate that the citrovorum factor is a formylated tetrahydrofolic acid. The enzymic conversion of folic acid to the citrovorum factor "in vitro" originally was accomplished with liver slices incubated aerobically, subsequently a cell-free system which contains all the essential components of the conversion system and which functions efficiently under anaerobic conditions has been obtained from liver.

As the molecular structure of vitamin B_{12} is unravelled the story of the anti-pernicious anaemia factor is being rapidly completed.

Many substances have been involved in the large amount of detailed work which has been done in connection with the subject of pernicious anaemia. Although in this brief article we have directed attention chiefly to vitamin B_{12} and its derivatives, folic acid and the citrovorum factor, and the protein synthesis factor, we have purposely made no attempt to discuss the various hypotheses concerning the complex interrelation of these substances. The extensive investigations of the metabolic roles of the folic acid-citrovorum factor and of the vitamin B_{12} group now in progress offers promise that the biochemical functions and interrelations of these two groups may soon be clarified. Perhaps the riddles are nearing ultimate solution, but it seems likely that as a result of the information gained here other problems will present themselves.

ISONICOTINIC ACID HYDRAZIDE

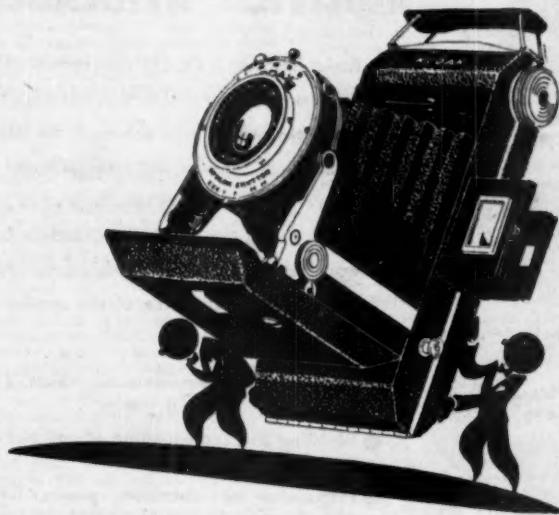
A New Anti-Tuberculous Drug.

By H. S. Grainger.

(From Recent Research Reviews in Export Review, August, 1952)

There has been much public interest in the last few months in the new anti-tuberculous drug isoniazid (isonicotinic acid hydrazide), which was released almost simultaneously by three American drug houses and which has since been marketed in England by several companies. The drug itself is comparatively simple and cheap to manufacture, and has been known chemically for many years. Numerous papers have already appeared on both sides of the Atlantic describing clinical findings, and the lay press has given it much publicity. Reaction in England has been one of caution in view of experience with streptomycin and other substances, which, after a promising start, proved disappointing on account of the high incidence of drug-resistance which occurs. Workers in the department of pharmacology at Guy's Hospital Medical School, London, have published a preliminary notice of their findings in this matter. A culture of *M. Tuberculosis* H37RV was incubated in Dubo's liquid medium, to which various concentrations of isoniazid had been added. At first they found that 0.01 μg per mil. was sufficient to inhibit growth of the organism, but, after 25 days a profuse growth was obtained in medium containing 1.6 μg per mil. By repeated subculturing it was found possible to build up resistance to 62.5 μg per mil., i.e., a 6000 times increase in the resistance of the original culture. The resistant organisms were used to inoculate the cornea of mice as described by Rees and Robson in a test they devised for screening anti-tuberculous drugs. After such inoculation a tuberculous lesion appears at the site of injection within 11 to 14 days and develops over a further two weeks to involve most of the cornea. Drugs having anti-tuberculous activity modify or suppress this reaction. When normal mycobacteria were employed in the test, isoniazid was shown to be an effective anti-tuberculous drug, but when the test was repeated using organisms rendered drug resistant *in vitro*, no protection was achieved even when doses up to 12 mgm./kgm. isoniazid were given. Clinical evidence is accumulating that resistance occurs in patients treated with the compound, though if streptomycin is administered simultaneously, the resistance is much reduced and delayed. This is comparable with the action of streptomycin in conjunction with p-aminosalicylic acid. The evidence so far does not convince one that isoniazid is of greater benefit than agents at present in use in pulmonary tuberculosis, though it would not be justifiable to withhold the drug when others had failed to produce improvement. Extended clinical trials of isoniazid are being conducted under the auspices of the Medical Research Council.—The Export Review, August, 1952.

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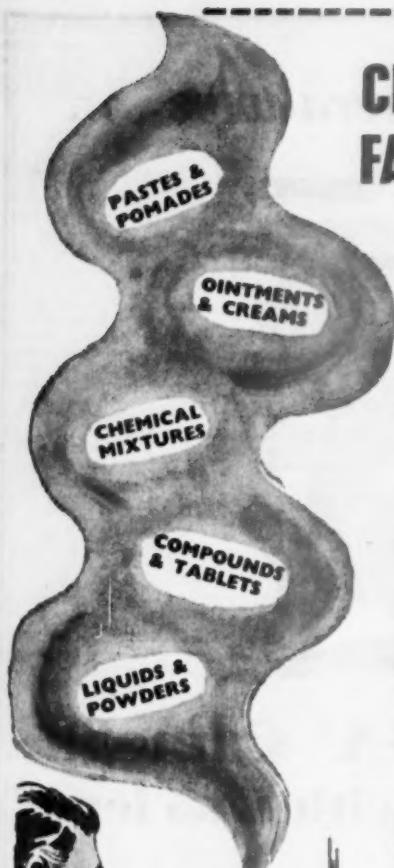
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INFUSION OF DEXTRAN SOLUTION

An analysis of reports on the infusion of 2436 bottles of dextran solution (representing 49 batches) which had been distributed, together with report cards, to civilian and service hospitals (W. d'A. Maycock, *The Lancet*, May 31, p. 1081), indicates that the general incidence of reactions is similar to that seen after the use of blood, and somewhat greater than that observed after the use of dried plasma. The dextran solution used was prepared to a specification drawn up by the Blood Transfusion Research Committee of the Medical Research Council, which defined tests for pyrogens, antigenicity, anaphylactic reaction in guinea-pig, toxicity, sterility, molecular composition and chemical analysis. Of the 1647 patients on which reports were received, 557 were obstetrical cases, 905 were surgical cases (including 109 with burns), and 185 were classified as miscellaneous.

The reports indicate that dextran has been used successfully as a plasma substitute, and blood-pressure records which were sent in suggest that the solution will restore and maintain a depleted blood volume. In many patients, the infusion of dextran preceded the transfusion of blood or plasma. Reactions, reported in 1.88 per cent. of the patients, included pain, pyrexia and urticaria. Four patients had a more severe type of reaction characterised by vasomotor collapse, profuse sweating, coughing, vomiting and cyanosis; and intense hyperaemia of the arms and face in one case, incontinence and muscular spasm in one case, severe pain in the loins in two cases, and severe pain in the chest and oedema of the face, eyelids and hands in one case. A possible explanation is that these patients were sensitised by Leuconostoc mesenteroides, which synthesises dextran, or by antigenically related organisms. The batches with which these severe reactions were associated were infused without reaction into a large number of patients. Apart from one doubtful case, no deaths were attributed to the use of dextran, and there were no reports of pulmonary oedema or of delayed undesirable effects. Some of the batches, it is stated, have been stored for 12 months at Aden in an ambient temperature of 87-98 deg. F. without undergoing detectable chemical or physical changes.

The author concludes that dextran is likely to find its main use in restoring a depleted blood volume, when for some reason the natural fluids, blood or plasma, are not available or are available only in insufficient amounts. Infusion of too much dextran will cause excessive dilution of plasma-protein, which is probably undesirable, or of red cells, which is obviously undesirable. For these reasons it is probably wise to limit the amounts of dextran infused to two or three bottles in patients with haemorrhage and five to six bottles (correspondingly less in children) in burns patients, blood or plasma being used to complete the transfusion.

—Pharm. J., July 28, 1952.

HIGH PENICILLIN LEVELS WITH BENEMID

To combat micro-organisms with a high resistance to penicillin, the best course may be to use Benemid temporarily to block excretion and thereby permit the achievement of a high blood-penicillin level, according to Baker and Pilkington (*Lancet*, 1952, 2, 17). Benemid is p-(di-n-propylsulphamyl) benzoic acid, and, like caronamide, blocks excretion of such substances as penicillin and P.A.S. by the renal tubules. The daily dosage suggested for Benemid (2 gm. daily) is much less than the dose of caronamide needed to produce a similar effect. Benemid also seems to have fewer side effects and to be better tolerated by patients. These authors describe the treatment at St. George's Hospital, London, of a patient with endocarditis due to *Strep. faecalis*. In vitro tests showed that the causal streptococcus was sensitive to aureomycin and chlorampheni-

col, but the condition did not respond to large and continued dosage with penicillin, streptomycin, aureomycin and chloramphenicol. Finally, the administration of penicillin 32 mega units daily and Benemid 4 gm. daily for 59 days resulted in a complete cure. There was no evidence that the use of Benemid caused renal damage.—The Alchemist, August, 1952.

PHENYLBUTRAZONE (BUTAZOLIDIN)—NEW ANTI-ARTHRITIC DRUG

By L.G.D.

Among the earliest, if not the earliest, announcement of the development of the synthetic chemical, phenylbutrazone, was that of Dr. William C. Kuzell, of the Stanford (California) School of Medicine at the annual convention of the California State Medical Society, which took place in Los Angeles (California), on May 4, 1952. He emphasised that the drug constitutes a treatment, rather than a cure, for arthritis, and is nearly as good for arthritis as Cortisone or ACTH and much less expensive. He reported that up to that time he used it on 409 patients suffering from rheumatoid arthritis and 70 per cent. showed significant improvement. Like the hormone drugs, however, the effects of phenylbutrazone last only as long as doses are continued. But because it is cheaper than cortisone or ACTH, Dr. Kuzell believes that there is a good chance of it replacing the hormones as the drug of choice in the treatment of rheumatoid arthritis. The 30 per cent. of patients who do not respond to phenylbutrazone treatment, can, of course, be given the more expensive hormone therapy. Dr. Kuzell also said that phenylbutrazone provides relief for patients suffering from gout and bursitis, and added that it is likely to become the treatment of choice in the case of gout.

Subsequent to Dr. Kuzell's talk before the California group, the U.S. Federal Food and Drug Administration, on June 2, 1952, announced that it had cleared phenylbutrazone for general use by physicians. At the time, additional information that had become available indicated that the synthesized chemical possesses three major advantages over cortisone and ACTH:

1. It works on a wider variety of rheumatic diseases;
2. Has fewer side effects; and
3. Costs the patient about one-eighth as much as cortisone.

Among the other disorders against which the new anti-arthritis is effective are gout, rheumatic fever, muscular rheumatism, bursitis, lumbago, neuralgia, sciatica, and various ailments of the spinal discs. The drug combines a strong analgesic property with a potent anti-inflammatory effect. It is taken in the form of oral pills, coated against stomach digestive juices so that they do not go to work until they reach the intestines. While phenylbutrazone does produce allergies in some patients, these stop when treatment ceases. The hormones, on the other hand, cannot be used on diabetics, and may sometimes produce diabetes if given over a prolonged period, or they may have a bad effect on the kidneys, on patients with high blood pressure, and may actually lead to brain damage if given over a long period. Cortisone costs the average patient about 2 dollars daily for minimum maintenance dosage, while it is estimated that phenylbutrazone will cost the patient only 30 cents a day or less.

Writing in the July, 1952, issue of the *Journal of the Medical Society of New Jersey*, Drs. C. H. Smith and H. G. Kunz, reported on their experiences with phenylbutrazone, also known as butazolidin. Chemically, phenylbutrazone, or butazolidin, is 3, 5-dioxo-1, 2-diphenyl-4-n-butyl-pyrazolidin and in its pure state is a white or slightly yellow crystalline powder of somewhat bitter taste. It is insoluble in water, but may be dissolved in alkalis, in ethyl alcohol, and other organic solvents. The average effective dosage is 600 to 800 mg. daily, taken in divided amounts. In most

cases, according to Smith and Kunz, this dosage will provide satisfactory therapeutic effect. However, they added, in the absence of symptoms of intolerance, the dose may be cautiously increased if therapeutic benefit is not achieved. Once improvement has been obtained on this higher dosage, a gradual downward adjustment should be made to the minimal level required for maintenance, and for some patients this may be as low as 100 mg. daily. To minimise gastric irritation, the drug should always be taken immediately before or after food or with a full glass of milk. The administration of an antacid sometimes proves helpful in overcoming "dyspeptic" symptoms induced by the drug. The action of the drug is usually noted by the third or fourth day and it is not necessary to continue trial therapy beyond a week in the absence of a favourable result. In the treatment of relatively transient conditions such as tendinitis, capsulitis, and bursitis, use of the drug can be discontinued a few days after symptoms have been completely relieved, but in the event of relapse subsequent attacks are usually as responsive to the treatment as the first, and therapy may be conducted on similar lines. In the treatment of the more chronic disorders, Butazolidin may be continued indefinitely in the minimal dosage required to keep the patient comfortable and free from acute exacerbations.

"EFOCAINE," A NEW NON-NARCOTIC ANAESTHETIC

By L.G.D.

Almost from the day that science discovered anaesthesia, surgeons and doctors have been seeking a preparation that would give patients relief from post-operative pain for prolonged periods. Although many drugs have been tried, until the present time, none has been found successful. Now, it would seem, the search may be ended with the disclosure by E. Fougera and Company Inc., New York City, of the development of a new drug, called Efocaine, a non-toxic, non-oily, aqueous-miscible solution, a single injection of which provides continuous sensory anaesthesia for six to twelve days or more.

Anaesthetic base of the new drug consists of procaine (1 per cent.), procaine hydrochloride (0.25 per cent.), and butyl-p-aminobenzoate (5 per cent.) dissolved in aqueous-miscible solvents comprising polyethylene glycol-300 (2 per cent.), propylene glycol (78 per cent.) and water. For preservatives sodium metabisulphite (0.1 per cent.) and phenyl mercuric borate (1 : 25,000) are used.

In practice, Efocaine is injected at the site of operation and works by creating a microcrystalline depot of its anaesthetic agents, which is slowly absorbed, thus providing prolonged relief from post-operative pain without resort to narcotics or vasoconstrictors. Moreover, the new drug does not interfere with wound healing, avoids the hazards of encapsulation, abscesses, foreign-body reactions, tissue slough and otherwise obviates the risk of other undesirable local reactions which oil solutions can produce.

The active anaesthetic agents of the new preparation, procaine and butyl-p-aminobenzoate, dissolve completely in the organic solvents, but are nearly insoluble in water. Upon injection, these active agents contact tissue fluids which cause them to be precipitated as a microcrystalline depot of relatively long duration.

Now rounding out a long period of clinical trials and evaluation in a wide range of surgical procedures, Efocaine has been shown to be effective in controlling pain following rectal, abdominal, thoracic and minor operations, after tonsillectomies, and for the relief of

pain in minor surgery such as excision of sebaceous cysts, incision for felon, etc. It is also indicated for relief of pain due to localised pruritus, fractured ribs, pleurisy, sprains and low-back pain.

The new anaesthetic is designed for injection by the subcutaneous and intramuscular routes. It is administered with standard local anaesthetic techniques for infiltration (for example, local infiltration, peri-incisional infiltration) and nerve block, such as intercostal block and para vertebral block.

Reporting on the use of Efocaine for prolonged intercostal nerve block in 30 cases of upper abdominal surgery, two New York surgeons, Drs. W. J. Fuderback and H. E. Shaftel noted that 1 to 2 cc. of the drug was used on each of the patients, who ranged from 36 to 64 years of age. The group comprised 19 women and 11 men.

"The mean anaesthetic duration," they said, "was generally more than 10 days when either quantity (1 to 2 cc.) was used, and there appears to be no advantage to injecting either more or less of the solution. Since efocaine is miscible with the body fluids it is not encapsulated and the solvent phase is rapidly absorbed." Post-operative pain control was achieved to a high degree, they said, with days of block anaesthesia ranging from 10 days in some patients to 21 days of anaesthesia in others.

In another report on the use of Efocaine in proctologic practice, where the incidence of pain runs high, Drs. J. M. Gross and H. E. Shaftel, both of New York, similarly reported a high degree of post-operative pain relief for a group of 65 patients, 19 to 69 years of age. As evidenced by the post-operative drug requirements and sensitivity to skin-prick, the drug produced an efficient local anaesthesia in all cases. "Of the entire series," they said, "35 patients required no post-operative medication; 28 received one or two doses, and two patients received three doses of post-operative medication. The mean number of doses per patient for the entire test group was 0.60. In contrast to these results, the control group required an average of 4.36 doses per patient, and there were no patients who did not receive post-operative medication."

The recommended dose range for Efocaine in anorectal surgery, according to these proctologists, is 5 to 10 cc. Large quantities are unnecessary and smaller doses present the difficulty of obtaining a complete nerve block for the area. In pruritus ani, the recommended dose is 3 cc. to either side.

Aside from effective pain control and freedom from toxicity, outstanding advantages claimed for the new anaesthetic include: (1) Sharp reduction in need for post-operative narcotics; (2) Need for catheterisation virtually eliminated following ano-rectal surgery; (3) No interference with wound healing; (4) Productive coughing facilitated and atelectasis development minimised following upper abdominal surgery; (5) Earlier ambulation of patients; (6) Reduced need for nursing attention; and (7) More pleasant convalescence.

NEW INSTRUMENT TO STUDY TOOTH DECAY.

In the department of preventive Dentistry, University of Sydney, an instrument has been developed which, in conjunction with the electron microscope, marks an interesting advance in the study of decay in teeth.

The magnification obtained permits observation of changes in the surface structure of teeth; changes in the prisms or rods of the enamel are readily followed.

Experiments have been carried out with fluorine compounds in the endeavour to make teeth decay resistant.

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Applied Pharmaceutics

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Advisory Panel: N. C. Manning, H. A. Braithwaite, A. W. Callister, B. G. De Lacy, A. T. S. Sissons.

THIS MONTH:

- A Non-sensitising Calamine Cream.
- Incompatibility of Sodium Phenobarbitone.
- Query on "Carcholin" Eye Drops.
- Cortisone Eye Drops.

DISPENSING PROBLEMS

A Non-sensitising Calamine Cream.

A request was received for a cream containing calamine and phenol suitable for application to eyelids. It was required not to contain ingredients of animal or vegetable origin in order to reduce the incidence of allergic reactions.

"Unemul" and bentonite were considered suitable emulgents. Bentonite was used eventually because it was more readily available than the inactivated aluminium hydroxide.

Preliminary studies have indicated that the following formula is fairly satisfactory, although the preparation has not been subjected to extreme conditions for long periods.

OPHTHALMIC CREAM OF CALAMINE & PHENOL.

Calamine	20
Liquefied Phenol	1
Liquid Paraffin	5
Bentonite	7.5
Glycerin	15
Distilled water	to 100 (by wt.)

Notes:

(1) The bentonite should be subjected to some sterilisation process. The powder may be sterilised by heating at 150 deg. C. for one hour, or a gel prepared from the bentonite, the glycerin and some of the water may be autoclaved at 115 deg. C. for 30 minutes.

(2) Bentonite is a variable substance, and the 7.5 per cent. suggested above may need to be varied when other samples are used. For this reason the "Unemul" type of emulsion may have been a better choice.

(3) The liquid paraffin seems to improve the consistency and "rub" of the cream, but the inclusion of much more than 5 per cent. v/w presents difficulties when 1 per cent. liquefied phenol is to be included.

—R. A. ANDERSON (S.A.).

Incompatibility of Sodium Phenobarbitone.

R/

Sod. Phenobarbiton.	2 gr.
Chloral. Hyd.	20 gr.
Sod. Brom.	20 gr.
Syr.	q.s.
Aq.	ad $\frac{1}{2}$ fl. oz.
Ft. mist.	Mitte 3 fl. oz.

Sig. $\frac{1}{2}$ fl. oz. ex aqu.

This prescription was presented at our pharmacy for dispensing, and we were immediately conscious of the presence of an incompatibility. We dispensed the prescription as directed by the A.P.F. 1947, using Mucilage of Tragacanth, and to increase the viscosity

of the mixture we used 1 fl. oz. of Syrup in the 3 fl. oz. of mixture. On the label we clearly indicated that the bottle should be shaken well before pouring out a dose, and we also instructed the patient verbally of the fact.

—N.H.J. (N.S.W.).

Another point of interest in the above prescription is the inadequacy of the directions. Many accidents occur because of insufficient directions on prescriptions containing potent drugs, particularly where self medication can occur.

In addition to barbiturates, the sulphonamides can be potentially dangerous when the directions are, for example: "Four tablets as directed."

Pharmacists are in a unique position to bring such dangers before the notice of their local physicians.

Query on "Carcholin" Eye Drops.

Can you help regarding a preparation called "Carcholin" which occurs in the following prescription? The drops are used for a case of long-standing iritis.

R/

Carcholin .. 1%	in Ophthalmic Zephiran 1 in 5000.
-----------------	-----------------------------------

—G.H.W. (Vic.).

1. Carcholin is Merck's brand of carbamylcholine chloride (Carbachol U.S.P.).

2. Solutions up to 1.5% in strength are used. One drop of such solution may be instilled into the eye at 8 to 12 hour intervals.

3. The drug is a powerful miotic.

4. Preserved solutions with benzalkonium chloride (as above) remain pharmacologically active for extended periods.

5. The drug should only be used under the close supervision of an oculist.

6. Ordinary Zephiran Concentrate is suitable for eye work, and may be diluted with distilled water. It is also compatible with normal saline.

Cortisone Eye Drops.

I submit the following for your Applied Pharmaceutics Section:-

The value of Cortisone in the treatment of eye conditions is now well established, and pharmacists may anticipate prescriptions for "Cortisone Eye Drops." These may be prepared by the following method:-

Sterilise a hypodermic syringe and needle. Withdraw the required amount of suspension and dilute each 1 cc. of Cortone Acetate Suspension with 4 cc. of normal saline solution in a sterile bottle. (The finished product therefore contains 5 mgm. per 1 cc.).

Note: Only by following aseptic technique can the sterility of the suspension remaining in the original vial be assured.

—G.T.P. (Vic.).

Retail Productivity Team from Great Britain Visits the U.S.A.

By H. G. Moss, M.P.S., Managing Director of E. Moss Ltd., Chemists, of Feltham, Middlesex; Member of: National Pharmaceutical Union Executive, Proprietary Articles Trade Association Council, and Middlesex Pharmaceutical Committee.

Over the past four years there has been a series of visits to the U.S.A. by teams drawn from most of the major industries of Great Britain, the purpose of these visits being, briefly, to study American methods of Production, Management, etc., with a view to ascertaining whether the application of similar ideas could, if introduced in Great Britain, lead to increased productivity. The need for greater productivity is, of course, one of the paramount problems facing our country today in its struggle to make a recovery from the effects of the late world war.

Retailing in U.S.A. Studied.

As part of this general plan of Productivity Teams, it was decided late in 1951 to form a team drawn from the retail industry, to include representatives of Management, Employees and Trade Unions, and at the same time a cross section of the trades involved. When, therefore, I accepted an invitation to become a member of this particular team, I did so because I felt that it would not only give me the opportunity of studying the general principles of retailing as practised in the United States, a most valuable and interesting experience in itself, but also the opportunity of looking at the American Drug Store which, from all that I had heard, was something quite different from anything we knew in our country.

The team, 17 in all (I was, of course, the only Pharmacist) sailed from Southampton on February 19 and arrived back in England on April 13, having spent nearly seven weeks in the U.S.A., covering approximately 14,000 miles during the trip with visits to, amongst other places, New York, Boston (Mass.), Detroit, Chicago, Portland (Oreg.), San Francisco, Los Angeles and Washington, D.C. Let it be said straight away that there was no thought in our minds when we set out on this trip that the Americans had all the answers, and in point of fact we saw many things which we felt we did better ourselves, but, just as no individual has a monopoly of ideas, equally so is this the case with nations, and there were, in fact, methods and ideas that we came across which we felt were worthy of serious consideration by retailers in Great Britain.

It was no purpose of the trip that each member should study merely his own particular trade, but rather that all members should work as a team, studying all types of trades. As a result, I was privileged to visit and to go behind the scenes in many different types of stores, departmental and chain, as well as the smaller individual units which not only proved extremely interesting, but also gave a very comprehensive insight into the various methods of trading and the different approach of Managements to the problems which arise.

I propose first of all to discuss matters generally applicable to all types of retail trading and to lead up to considering those peculiar to Pharmacy.

Trading Hours.

One of the first major differences which struck me very quickly after our arrival was the hours during which the shops were open in the U.S.A. There are, of course, no legal restrictions of any kind on such matters, with the result that most shops were found to be open six full days a week and, over on the

west coast particularly, frequently for the full seven days. The actual hours of opening varied considerably but were never less than from 9 a.m. to 6 p.m., and one frequently found shops open until 8, 9 or 10 p.m., sometimes even as late as midnight.

Although shops were open for these extended hours, I nevertheless found that, apart from the Management, assistants worked in the majority of cases only a 40-hour 5-day w.k. These hours of opening were, of course, achieved by an extensive use of the shift system. There appeared to be little shortage of labour and considerable advantage was taken of the availability of part-time workers, both married women and students. In this latter respect it was found that colleges encouraged this type of employment, and even adjusted their curricula to allow for it. There was, in fact, very close collaboration between the retail industry and the colleges and universities where courses were available up to advanced levels, designed for the highest executive positions.

Competition Intense.

Another important factor which soon impressed itself upon me was the intense competition that exists in the United States, which had differing effects according to the class of trade. In the food trades, self-service has become almost universal and here the chief accent was on "cash and carry". Stores operating on this principle gave the customer virtually no service of any kind whatever; customers did their own selecting, carried their purchases round the store with them, and took them home themselves, no credit being allowed nor any delivery service provided. Competition was generally on price, margins having been cut to a very fine degree; in fact, price was the only real consideration, quality being something left to the manufacturer, who knew full well that unless his products were up to standard, they would be ignored by the customer.

In contrast to this, the other extreme was noticed in the Dry Goods and Department Stores where, although price was still an important factor, competition also showed itself by various services which were offered in addition, notably in the fields of delivery and credit. The opening of a credit account was actively encouraged, the theory being that the customer who had an account was of greater potential value than the one who did not. Even the smallest item was delivered if requested, it being feared that reluctance to do so might result in the customer going elsewhere; nevertheless, due to the high costs of such a service, one saw throughout these stores notices which read: "It will get home quicker if you take it!" Another result of this intense competition on services was in regard to returned goods for, provided a customer could produce the bill and that the goods were being returned within a month, cash was refunded on any purchases, no questions being asked or reasons demanded. Some stores admitted that over 20 per cent. of the merchandise they sell is returned, not because the goods themselves were in any way faulty, this was seldom the reason, but due to a "change of mind" on the part of the customer. The theory behind this policy was that knowledge on the part of the customer of this ability to return goods after purchase if desired over-

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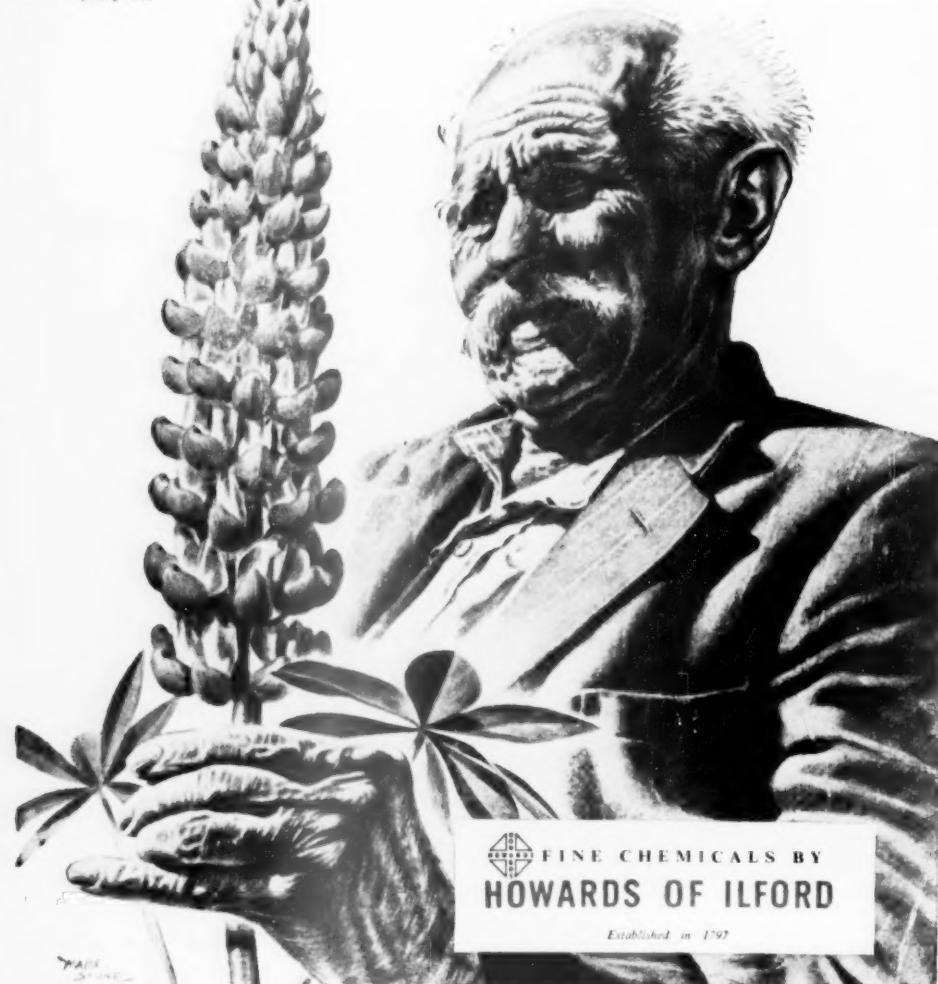
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T.M.W./51

came any hesitancy to make the purchase and that some at least of these "impulse" purchases would stick.

Effects of the Motor Car on Shopping.

One interesting trend affecting retail trade which became evident to the team as they travelled through the United States resulted from the extensive use of cars. There is, on the roads in the U.S.A., today, almost one car for every third person, man, woman and child, and those who own cars quite naturally like to use them when shopping. This is, of course, creating an impossible situation from the point of view of parking and efforts are being made in some of the big cities to lessen the problem by building large underground car parks, but this is never likely to provide the complete answer. There has, therefore, been a noticeable tendency since the war for new shopping centres, including branches of down town Department Stores, to be set up on the outskirts of a city, frequently some distance from any housing but fulfilling two important conditions:

- (a) Ample space for car parking;
- (b) Close proximity to a main arterial road.

The theory here is that customers will be just as willing to journey to these out of town shopping centres as into the town itself, in fact, more willing, knowing they will have no difficulty in parking their vehicles. Several examples of this new type of centre were seen by the team and they comprised every type of shop, including Department Stores, Super Markets and small shops, as well as Cinemas and other attractions, enabling customers to obtain all their requirements in the one centre and, if they desired, to make a day of it. Parking space for as many as 6,000 cars was frequently found at this type of centre.

The Position of the Small Retailer.

The question is often put to me as to what position the small individual retailer occupies in the American set-up. Naturally, these shops being smaller, they do not do the same average volume per shop as the big stores, Super Markets, etc., but nevertheless more than half the total volume of retail business in the U.S. today is done by the private trader. Since the beginning of this century they have had to meet many threats to their existence and livelihood for in the early nineteen hundreds there was the threat which arose from the stupendous development of the mail order business in which the famous firm of Sears Roebuck was the prime mover. Then between the wars came the chain store development and now since the last war we see the development of self-service, culminating in the ultimate of this method of trading, the giant Super Market.

The Drug Stores and Super Markets.

So far as the Drug Stores are concerned, they are, of course, closely affected by these Super Markets, which handle not only all types of foodstuffs, including groceries, meat, greengrocery, dairy produce, fish, etc., but are entering the drug and cosmetic fields in a large way, offering the customer the simultaneous advantages of self-service and of being able to shop for all basic necessities under the same roof. This development is, of course, causing concern, but having had the opportunity of meeting many American Drugists and appraising their resourcefulness and highly developed business acumen, I am in little doubt that this is a threat they will overcome just as successfully as they have overcome previous threats to their livelihood.

Another interesting development in the Drug Store field springs from the present trend of the Drug Stores themselves. It has been common knowledge for many years that the American Drug Store is something much more than just a Pharmacy, even the traditional soda fountain has now developed into a cafeteria where

complete meals can be obtained. So far as the range of merchandise is concerned, it appears to become wider and wider as time progresses, and now not only Drugs and Cosmetics, but other lines such as Cigarettes, Tobacco, Liquor, Photographic Equipment, Electrical Goods, Toys, Books and Confectionery can be found, much as in a typical variety store. The result of this is that the prescription department becomes less and less prominent, and the shop itself less and less like a Pharmacy. This, to my mind, has led to the development of what are called Prescription Pharmacies, where dispensing is really the main business, and the retail trade, even Drugs and Cosmetics, are well to the background. The Prescription Pharmacies are professional in appearance to the very extreme, and if one may judge from the new ones continually being opened, they are making good. For instance, in Los Angeles I learnt of three new Pharmacies of this type which had been opened, all within the past twelve months, and of the 50,000 Drug Stores in that country, something like 1,000 of them are now this type of pharmacy. To me this is perhaps a logical result of the way in which the ordinary American Drug Store is going, since it is not difficult to conceive what passes through patients' minds when, with a prescription in their hand, they consider where they should take it to be dispensed. They have, on the one hand, a store very little resembling a Chemist's shop, handling a wide variety of merchandise and with very little professional atmosphere about it on first appearance, whilst, on the other hand, they see a shop obviously specialising in the compounding of prescriptions, with everything else subservient. The result, quite naturally, to my mind, is that more and more patients are tending to go into the shop which really looks a Pharmacy.

From a purely commercial point of view, the typical Drug Store would appear to be prospering, and from that angle no more need be said, but it would not surprise me if the trend to which I have already referred continues, with the result that eventually the bulk of dispensing will go to these Prescription Pharmacies and the bulk of the retail drug trade to the Drug Stores, where a Pharmacist will be kept solely for the purpose of complying with the laws which require the presence of a qualified person when drugs of any kind are being sold.

To all these remarks I must add one important qualification, namely, that I write of Drug Stores in the cities and larger towns. It was a matter of great personal regret that the itinerary of the team did not include visits to the smaller towns and villages, where it is possible that I might have found something quite different. It is an omission I hope one day to have the opportunity of rectifying.

I was rather interested to learn that in 1940 a Society was formed, terming itself "The American College of Apothecaries". This is an entirely voluntary body with a membership now exceeding 300. Membership is confined solely to those who are prepared to conform to a very strict code of ethics, which includes a prohibition of Soda Fountains or other similar meal service, the banning of counter prescribing or exhibition of any signs relating to the sale of Tobacco, Liquor or Patent Medicines, and an obligation, amongst many other things, to discourage self-medication, to carry a very comprehensive list of laboratory equipment, and an extensive pharmaceutical library, all designed to ensure that the Pharmacy is strictly, and from every angle, professional.

Price-Cutting a Worry.

One of the biggest worries facing the retail Druggist in the U.S. whilst I was there was price-cutting, which resulted from a new Supreme Court interpretation of the Miller-Tydings Act, 1937, which deals with Fair Trade practices, and I found many instances where the point had been reached of items being sold below cost. However, since my return, the McGuire Amendment

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has passed both Houses and received the signature of the President, and in this respect sanity has at least returned, but it brought home to me very vividly the suicidal extremes to which price-cutting can develop where all control is removed.

The N.A.R.D.

I found that Druggists have, in the National Association of Retail Druggists, a very live and militant body to look after their interests. I had the opportunity of visiting their headquarters in Chicago and was greatly impressed with all they did to protect and serve the interests of the private individual Drug Store proprietor. They, in fact, were the prime movers of the McGuire Amendment to which I have just referred, and went to amazing lengths to get this carried. Membership, which was voluntary, was confined solely to private Pharmacists, and the percentage who were members of this body was extremely high, indicating that Pharmacists in the United States were well aware of the value of unity in facing up to the problems of modern times.

Social Medicine Opposed.

Many questions were put to me whilst over there on our "Socialised Medicine," as they termed it, but these questions were generally framed with the purpose of securing additional arguments against any adoption of a similar scheme in the United States, not, as one would have imagined, for the purpose of ascertaining whether there were sufficient good points in such an idea to warrant something on similar lines being introduced over there. I found opposition to the principle of State Medicine not only amongst Druggists, but also amongst ordinary members of the public, and, as is well known, the bulk of the medical profession has always been against it. There are many and varied reasons for this opposition, not the least of which arises from the traditional resentment of the average American to anything run or controlled from Washington.

General.

The total volume of dispensing done in the U.S. as a whole is, in proportion to the head of population, somewhat less than is the case in our country since the introduction of the National Health Service, but on a similar proportional basis, I would estimate that more Pharmacists are employed. The demand for Pharmacists is, of course, greater, due to the extended hours of opening and the use of the shift system, but I saw no signs of difficulty in meeting the demand.

The level of wages paid to Pharmacists, after allowing for the general higher cost of living in the U.S., appeared not to differ very greatly from that prevailing in Great Britain, and their standard of living was similarly proportionate.

I cannot conclude this article without paying a most sincere tribute to the way in which our team was received wherever we went. Quite apart from the traditional American hospitality which we received at all times, nothing was too much trouble; whatever we required, wherever we wanted to go, we had but to ask and it was arranged. As a result, the team came back feeling they had learnt a tremendous amount. Not all American methods are, of course, suitable for adoption in Great Britain, but there were many things we saw which could, if applied in our country, perhaps with suitable adaptation, result in greater efficiency and hence greater productivity, and for that reason, apart from any other, the team were unanimous in their feelings that the visit had been well worth while.

Productivity Team Report—Retailing.

A report of this team's work, with their recommendations and conclusions, under the above title, has been published by the Anglo-American Council on Productivity, U.K. Section, 21, Tothill street, London, S.W.1. Price, 3/6, post free.

Chemical Control of Insects and Mites

Recent Developments

By T. W. Hogan, M.Agr.Sc., Senior Entomologist, Biology Branch.

I. THE PRESENT STATUS OF THE SYNTHETIC ORGANIC INSECTICIDES.

The author of this article recently spent six months abroad studying applied entomology at overseas institutions. During this time, particular attention was paid by him to the research work on chemical control. Observations were made on the range and uses of the newer insecticides, the machinery for their application, and also the apparatus and techniques employed in testing them. In this, the first of a series of articles, information of general interest on the subject is discussed.

Reprinted from "The Journal of Agriculture," Victoria—October, 1952.

The rapid advances in the chemical control of insects over the past decade has resulted, mainly, from the development of synthetic organic insecticides, of which the first to show marked advantages over previously existing materials was D.D.T.

The property responsible for the superiority of D.D.T. is its persistent action enabling what amounts to a protective coating to be applied to a plant or surface. This property is still the chief asset of those synthetic organics discovered more recently. Synthetic have other advantages also. In general, they are more potent than the materials which preceded them; they are more easily standardised to give consistent results; and the supply is more easily adjusted to demand. The synthesis of systemic insecticides (to be discussed later) gives promise of still further advance.

Most of the new insecticides have limitations with regard to the range of pests against which they are effective, e.g., D.D.T. is unsatisfactory for most mites and some aphids, while B.H.C. will not control codling moth. Parathion has a wider range of effective action than either D.D.T. or B.H.C., but it is unsatisfactory against soil pests and cannot be recommended for household pests because of its high toxicity to mammals. But the different synthetic organics now available enable adequate control of a much wider range of pests than was economically possible before their advent, for two reasons:—

(1) Persistent action enables control of certain plague pests, such as thrips, *Thrips imaginis* Bagn., or Rutherglen bug, *Nysius vinitor* Berg., where continuous re-infestation makes ordinary contact insecticides impracticable.

(2) The superior potency, in terms of the cost of an effective dosage, makes it economic to treat pests where it was formerly uneconomic, e.g., the control of many soil insects, such as wireworms, with B.H.C., chlordane, or aldrin.

Further advances are still taking place. Each month thousands of new chemicals are screened by chemical firms for evidence of insecticidal properties and the number being tested is increasing each year.

The number of new synthetic organic insecticides reaching the market, however, is diminishing each year. This is not because fewer effective insecticides are being discovered, but because the standard they must reach is becoming increasingly high. Only those which show a distinct advantage over those already available are marketed, otherwise the variety of materials would cause too much confusion. The advantages desired are not merely greater toxicity to insects. High toxicity to insects and low toxicity to mammals is the combination of qualities most actively sought

after, assuming that there are no obvious disadvantages such as severe damage to plants or excessively high cost of production.

Apart from the routine screening of new chemicals, there is constant research for evidence as to the molecular structure which provides the insecticidal property. So far the results have been mostly negative, although certain groupings are frequently associated with insecticidal activity. It has also been found that alterations in the structure of a chemical can vary its toxicity. This has been shown to be important with pyrethrins.

Equally intense is the search for the mode of action of the new insecticides, for this might provide the key to the chemicals most likely to be effective. These efforts are having a very stimulating effect on the study of insect physiology. The close study of insecticidal effectiveness inevitably leads into this sphere.

Limitations.

The chief factor limiting the use of the synthetic organic insecticides at the present time is the lack of sufficient information regarding their health hazards. Before dealing with recent information on the value of the new insecticides, it will be as well to examine what is known of their effects on human health and to assess the importance of some of the other complications which have arisen in the first decade that has elapsed since the synthetic organics came into general use.

Health Hazards.

Complete freedom from toxicity to mammals would be a highly desirable property of insecticides, but is not essential. Many materials used commonly in industry or the household are dangerous if mishandled—kerosene or petrol, for example. Nevertheless, the intimate contact of insecticides with foodstuffs calls for special precautions, and, although primarily a matter for health authorities, cannot be ignored by the economic entomologists when assessing the value of insecticides.

Some guidance is provided by the results of tests of acute oral toxicity to experimental animals. The synthetics have shown new dangers, however, which did not exist with previous materials. In oil solution they can be absorbed through the skin. This, too, can be determined by experiment, but there remain other possibilities including cumulative doses, and insidious effects from continued ingestion of sub-lethal dosages. An illustration of this danger is provided by one of the systemics which was first quoted as being

extremely safe, but later had to be restricted in the manner of its use because of effects on health not realised when it was first marketed.

The Organic Phosphates.

With the organic phosphate insecticides, such as H.E.T.P. and parathion, the dangers to health are much greater than with the chlorinated hydrocarbons. Parathion, at the rate of 2-6 mgs. per kg. of body-weight, orally, gives a 50 per cent. mortality with rats, compared with 200 mgs./kg. in the case of D.D.T. As with the other synthetics, oil solutions of parathion can be absorbed through the skin, but it is more volatile than D.D.T. and the vapour is also very toxic. H.E.T.P. and T.E.P. are considered less dangerous than parathion because they break down to non-toxic substances, and, therefore, do not leave toxic residues on plants.

When parathion was first tested in the United States of America, several fatalities occurred, but, with closer study of the properties of the material, it was realised that adequate precautions could be taken to prevent such accidents and parathion is still in general use in the United States of America, but maximum residues have been fixed and warning labels must be placed on the container.

Parathion owes its toxicity to insects to its inhibition of cholinesterase, an essential enzyme in nerve action. Its toxicity to mammals exists for the same reason. Successive doses are not cumulative, but, as there are no warning symptoms to indicate when the cholinesterase has been depleted, continuous exposure to parathion may be dangerous in that the rate of loss of cholinesterase may be greater than its replacement. In the United Kingdom, spray operators for one large firm of spray contractors are protected by being enclosed in an air-conditioned cabin. A safety device fitted to a spray machine at Riverside, California, enables sealed tins of parathion to be placed in a container which automatically punctures them and from which the concentrate pours into the vat without the operator being exposed to the concentrate or its vapour in any way.

Although not a single fatal accident has been recorded in Australia, in spite of the widespread use of parathion, the fact remains that parathion is one of the most dangerous insecticides in use today, and it is only its extreme efficiency in insect and mite control, particularly the latter, that permits its retention. There can be no doubt that, with the safer and equally efficient insecticides being developed, it will be replaced before long.

Some of the systemic insecticides are phosphates also, and, as these depend on being absorbed into the plant for their efficiency, the dangers are potentially greater. They do break down into innocuous derivations after a period of some weeks, however, and the only precaution necessary is to see that plants are not sprayed within three to four weeks of harvesting.

One material which shows a high degree of specific toxicity to insects is pyrethrum. It is unstable, however, and, therefore, lacks a persistent residue. At Rothamsted, work is proceeding on the alteration of the structure of certain pyrethrins to give them stability without loss of toxicity to insects. Success in this project would be a big step forward in the chemical control of insects.

The toxicity of insecticides to humans is responsible for most of the present difficulties in their use and has led to concentrated search for materials less toxic to humans, while equally toxic to insects. Such materials are gradually being discovered, but it takes a long time to properly evaluate them. Neither manufacturer nor consumer are now prepared to take the risks that were taken, unknowingly, when the first synthetics appeared.

Effects on Beneficial Organisms.

The effect on living organisms of any new complex synthetic organic chemical cannot be predicted, so that, when a new insecticide of this type is discovered, its effects on living organisms must be thoroughly investigated. Apart from acute oral toxicity to mammals and their effect on plant life, most of the information on the early synthetics has been obtained by trial and error, i.e., they have been used as insecticides, and observations made on their long-term effects. Gradually, however, the volume of work on their effects on other organisms has grown and today represents quite a proportion of the total work on new insecticides.

In general, there have been no serious effects on birds, and other warm-blooded animals where normal precautions against excessive dosages have been observed. It was quickly found, however, that fish were highly susceptible to D.D.T., toxaphene, and a number of others, and precautions had to be taken to avoid contaminating water with insecticides where fish were present. So far, reports indicate that soil bacteria are not seriously affected by any of the materials in common use.

Beneficial Insects.

The principal complication, and one that is not easily avoided, has been the destruction of beneficial insects of two types:—

(a) Bees and other pollinators.

(b) Parasites and predators of insect pests or mites.

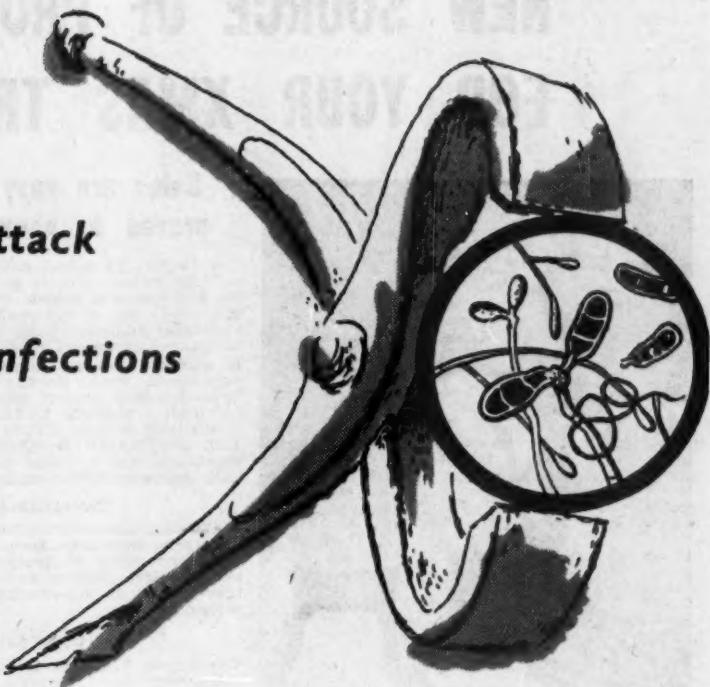
As far as bees are concerned, D.D.T. has proved relatively safe. Of the D.D.T. preparations, the dust is more easily picked up by bees, and is, therefore, more dangerous than the spray. B.H.C. is much more toxic, while the degree of danger with parathion is still indefinite. It is probably highly toxic, but less dangerous because less persistent, but, by proper methods of application, serious effects can be avoided with this or any of the insecticides. Timing of sprays to avoid blossoming is one method, but, if impracticable, then the use of minimum strengths and the choice of the least dangerous insecticide will help considerably.

A more serious problem arises in relation to the destruction of parasites and predators of insect pests. This classic example is the development of red spider on trees treated with D.D.T. for the control of codling moth, *Cydia pomonella* L. In Victoria, bryobia mite, *Bryobia praetexta* Koch, populations increased phenomenally on D.D.T. sprayed trees and the red spider, *Tetranychus urticae*, to a lesser extent. Both here and abroad there appears no doubt that this is due to the destruction of insect predators while the mites themselves remained unaffected by the D.D.T. Similar evidence has been obtained with *aphelinus mali*, the parasite of the woolly aphid, *Eriosoma lanigera*.

The number of such instances is very small, but considerable emphasis has been placed on the problem because of this startling and serious development of mites after the application of D.D.T. to apple trees. This is now quoted as an example of the evils which follow interference with the "balance of nature." In actual fact, no natural balance (i.e., free from man's interference) existed in commercial orchards long before the advent of the new insecticides. An "artificial balance" favourable to high yields of pest-free fruit existed, and, if this balance became upset, due to ignorance or poor judgment, it is clearly a matter for careful investigation into the factors operating and the means by which corrections can be applied, rather than abandonment to natural conditions.

For the codling moth, the alteration necessary is the finding of a substitute for D.D.T., effective against red spider also; or one that is at least harmless to the parasites and predators of red spider. Thus, the solutions lie in opposite extremes, viz., greater specificity, so that codling alone is killed; or, less specificity, so that the mites are killed as well as the codling. Both

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possibilities exist. Parathion is an example of the latter, though it does not rate highly for codling control.

Lead arsenate, also greatly inferior to D.D.T. for codling control, did not kill the mites or the parasites and predators, and, in relation to the insect complex on apples was, therefore, more specific. The ideal material is yet to be found, but the admixture of parathion, or replacement of part of the D.D.T. programme with parathion and a minimum of D.D.T. with a more efficient winter spraying of bryobia eggs, appears one way of minimising the problem at the present time. A more efficient acaricide* than parathion would be a further advance and there are excellent prospects of such a material being available in the near future.

Biological Control in Relation to Chemical Control.

The alarm which followed the discovery of the ill-effects of D.D.T. on beneficial insects, is being replaced by a confidence that there is a place for both biological and chemical control of pests, and that chemicals can be obtained which will control insect pests without destruction of beneficial insects. The most promising lead in this respect is the development of systemics, and very great interest is being taken in these materials because of their great possibilities in specificity of action, and efficiency in control of sucking insects or mites. Not only systemics, but other insecticides are being discovered with a greater degree of specificity, and many of the new acaricides are not only specific to mites, but effective only against certain species.

Resistant Strains of Insects.

A development of extreme interest and importance has been the occurrence of strains of insects showing resistance to some of the new insecticides after the latter have been used against them intensively over a period of some years.

The first records were in relation to the common housefly, *Musca domestica L.* and D.D.T. The degree of resistance has been so remarkable that considerable study has been devoted to the problem both in the United Kingdom and the United States of America. Interest has been heightened by the discovery that the strains of the housefly resistant to D.D.T. quickly develop resistance to other chlorinated hydrocarbons, such as B.H.C., chlordane, toxaphene, and dieldrin.

Other insect pests have since been recorded as developing a resistant strain to insecticides and it is felt that a major problem in the chemical control of insects may arise unless some means of preventing the onset of resistance can be discovered. At the time of writing, the only insects known to have developed resistance to D.D.T. are the housefly, the gladiolus thrips, *Tenuiphis simplex* Mor., and some species of mosquitoes, but a tick resistant to B.H.C. is recorded, and it is suspected that one of the red spiders occurring in Europe, *Tetranychus telarius*, has developed resistance to parathion and to azobenzene used in aerosol form in glasshouses. Of the other chemicals, it is now considered by workers at Riverside, California, that the resistance of red scale, *Aonidiella aurantii* Mask., to H.C.N. is not satisfactorily explained by the closure of spiracles theory and that it is more likely to be chemical in nature. A strain of the San Jose scale, *Quadraspidiotus puncticulus* Comst., resistant to lime-sulphur, is also reported in California, but this report needs confirmation.

At present it cannot be predicted whether other insect pests may develop resistance or not. It is of special interest that, although codling moth has been bred through many generations in the laboratory under conditions similar to those which most quickly lead to the development of a resistant strain in the housefly (i.e., killing off about 60 per cent. of the larval population of each generation by a dosage of D.D.T. suffi-

cient to give this mortality), no resistance has appeared in codling moth.

It is, incidentally, very important to distinguish between increased resistance due to selection of the more resistant section of the population and a truly resistant strain. The dosage required against the more resistant section of a normal population may be as much as three times the normal dosage, so that, unless the dosage required is more than three times the normal, it is not considered as evidence of a truly resistant strain. In the case of the truly resistant strain of the housefly, the lethal dose may be more than 300 times that required for a normal housefly population.

If a resistant strain is present in a population it will tend to appear under intensive continuous insecticidal treatment of large insect populations where circumstances favour a high reproductive rate of the insect. Resistance can be developed in a housefly culture under laboratory conditions in five to eight generations using the method of treating the larvae mentioned above.

Nature of the Resistance.

There are various possibilities that would account for resistance to insecticides such as differences in the penetrability of the cuticle, storage of the insecticide in a non-susceptible part of the insect body, or by breakdown of the insecticide to non-toxic products. In the case of D.D.T. evidence favours the last. Both English and American workers have accumulated very definite evidence that resistant flies have the capacity to break D.D.T. down to non-toxic products. Dehydrohalogenation (splitting off H.C.L) appears to be the process by which this is done. Non-resistant flies appear to have the same power, but to a much lesser degree; or possibly their metabolism is more easily upset and they lose the power.

There is some evidence that the resistance mechanism may vary. At the London School of Hygiene and Tropical Medicine, the "knock-down" time for one strain of resistant housefly is very much shorter than for the second, although the degree of resistance in terms of mortality for a given dosage of D.D.T. is much the same. Also, there is conflicting evidence from genetic studies as to whether resistance is a single character or whether it may follow from a particular grouping of genes. Some resistant strains regain their resistance over several generations without exposure to D.D.T., whereas others lose it unless selection is maintained in this way. It would not be at all surprising, therefore, if more than one mechanism of resistance is discovered.

Combating Resistance.

Once the mechanisms of resistance within the insect are known it will, doubtless, be possible to modify existing insecticides, or synthesise new ones, to defeat each particular mechanism. In the meantime, it is important to prevent, as far as possible, the resistant strains developing to the point where they can interfere with effective control.

Where insects are known to have a truly resistant strain, as in the housefly, continual exposure to severe insecticidal applications favours the development of resistance, and infrequent treatments of low severity are less likely to select out the resistant strain. If such treatments are insufficient to give the degree of control required, then a second and even third insecticide should be used at intervals rather than increasing the severity of treatment with the one insecticide.

This is still the danger that an insect may develop resistance to a group of insecticides, as house flies have shown they can do with the chlorinated insecticides. It is, therefore, advisable to choose insecticides from unrelated groups whenever possible.

Another approach is to make use of non-chemical methods of control whenever practicable. Where biological control can make an effective contribution to the control of an insect pest, efforts should be made to avoid the destruction of parasites, as discussed under the section, "Beneficial Insects."

*Sometimes termed miticide; more accurately known as acaricide.

Presentation of Portrait of Mr. A. T. S. Sissons

Happy Ceremony at Victorian College of Pharmacy

Mr. A. T. S. Sissons, Dean of the College of Pharmacy, Melbourne, has been associated with the College as Head of the Lectorial Staff for the past 33 years. It was a particularly happy thought on the part of Mr. and Mrs. N. C. Manning to commission an artist to paint a portrait in oils of Mr. Sissons for presentation to the College.

The presentation and unveiling ceremony took place on the afternoon of Sunday, November 23, when about 150 persons assembled in the Museum of the College. The President of the Pharmaceutical Society of Victoria (Mr. A. G. Davis), who acted as Chairman, was supported by a number of members of the Council and their wives, lecturers and staff of the College. A number of Mr. Sissons' personal friends, including some of his former teachers, were present to do honour to him on the occasion. Guests included Major-General and Mrs. A. H. Ramsay, Judge and Mrs. Norman Mitchell, Professor and Mrs. F. H. Shaw, Professor G. S. Browne, Professor and Mrs. S. D. Rubbo, Dr. Cyril J. Tonkin, Professor and Mrs. A. Amies, Dr. and Mrs. J. H. Lindell, Mr. Leigh Scott, Mr. and Mrs. P. Crosbie Morrison, Dr. and Mrs. C. E. Eddy, Brigadier G. F. Langley, Mr. and Mrs. J. L. I. Griffiths, Mr. and Mrs. George Finlay, and Mr. and Mrs. R. E. Summers. The eloquent addresses of the various speakers convey best the tributes expressed, and we are pleased to record here the main part of the speeches.

Mr. Davis opened the proceedings by tendering on behalf of the Council a very cordial welcome to those present. He was sure they would share the Council's pleasure in being present for this ceremony, made possible by the very generous gesture and thoughtfulness of Mr. Nigel C. Manning and Mrs. Manning. The presentation they would make this afternoon would be appreciated and valued by all associated with the College. Mr. Davis then introduced Mr. Manning.

The Presentation by Mr. Manning.

Mr. Nigel C. Manning said about six months ago his wife and he thought it would be a fitting thing to do to make a presentation of a portrait of the Dean of the College of Pharmacy to the Pharmaceutical Society of Victoria. They thought that such a portrait would be a traditional record of the Dean, and would be, they hoped, a decorative adjunct to the new College. He understood that the portrait was to decorate the Museum at the present College until the new College was built. Their function had been a very simple one. They had asked Mr. Sissons if he would be good enough to sit for the portrait and the artist to paint it. He had done that, and they were present simply to hand the portrait of Mr. Sissons over to the Council.

The "hanging of Mr. Sissons" (laughter) at a ceremony such as this was, he assured them, solely the concern of Mr. Davis and his Councillors. Mrs. Manning and he were delighted to see present the artist, Mr. Scott Pendlebury, and his artist wife, Nornie Gude. They were delighted to see so many leaders in education and the allied sciences and industry, because their presence showed they appreciated the outstanding service of Mr. Sissons to the College over a period of 30 years. They had been 30 years of quiet endeavour, but prodigious effort nevertheless, and very solid achievement. The unveiling of the portrait would be done by Dr. Stanton. Dr. Stanton had known Mr. Sissons for many years. He had been an old colleague and personal friend. He perhaps more than anyone else had seen the College of Pharmacy grow in size and in space, and they felt he was a fitting person to unveil the portrait. They could see then that Dr.

Stanton had a fourth dimensional background in this institution. They hoped he was going to unveil for them a three dimensional picture which was painted on a two dimensional canvas, and the President had asked him (in case he spent too much time in his one dimensional function, which would be gall and wormwood to the audience) to ask Dr. Stanton to hand the portrait over as a gift for the new College. (Applause.)

The Unveiling.

Dr. Byron L. Stanton said that with characteristic thoughtfulness and generosity Mr. Manning and his good lady had made this presentation, and perhaps transplanted an old University tradition into their own halls of learning, inadequate as they were. Through this portrait pharmacy paid once more a tribute to one of its outstanding personalities, and he was privileged to add his personal tribute to a very esteemed colleague and friend.

Pharmacy had been singularly wise or fortunate or both in the choice of its leaders, but in none had the choice been happier than in the person of their Dean, who for many years had carried the increasing burdens of education with amazing lightness and ease, and with unerring judgment and efficiency.

It had been said that the "couldn't care less" attitude of the younger generation was due to the fact that they had a large number of critics and not enough leaders; but as far as the younger generation of pharmacists was concerned Mr. Sissons had eradicated that considerably. In the years he had been with them they had had ample opportunity of judging. Not only had he applied his critical discernment to enable him to fit within the framework of his own profession, but he had also contributed to the development in the students of a spirit that acknowledged, accepted and fulfilled its obligations within the larger framework of the community.

Whatever the circumstances, Mr. Sissons had always lived up to his enviable reputation—an imperturbable reliability, never letting down a friend or a colleague or a student.

Therefore, symbolic of this benign influence, some tangible object such as this should be before them always; and what more fitting than a portrait of the person whose personality and work had inspired them? He had, therefore, very considerable pleasure in unveiling this portrait, and in doing so might he observe that this placed Mr. Sissons literally and actually as an ornament among pharmaceutical personalities. (Sustained applause.)

The President Expresses the Thanks of the Council.

Mr. Davis said it was now his duty to accept this very fine portrait from Mr. Nigel Manning and Mrs. Manning, and it gave him very great pleasure to do so. He was sure that in years to come it would be looked on with admiration by future students and the future pharmacists of Victoria—perhaps of Australia. There were lots of things he could say about Mr. Sissons, but Dr. Stanton had said practically all there was to be said in the time they had at their disposal.

Mr. Davis said he was in a very awkward position. Mr. Manning had warned him and pleaded with him not to make too great a fuss about his presentation. As Dr. Stanton had said quite a lot about Mr. Sissons, he (Mr. Davis) would just like to say on behalf of the Council they also appreciated the work Mr. Sissons had been doing over the past 30 years. His work for pharmacy in Victoria was well known, not only in Victoria, but over the whole of the Commonwealth.

The work he had done in the field of pharmaceutical education had been most inspiring to every chemist in Australia.

Addressing Mr. and Mrs. Manning, Mr. Davis said he thanked them sincerely on behalf of the Council of the Society for their gift. They appreciated and would value it, and he was sure every member of their profession would do likewise.

He congratulated Mr. Pendlebury, the artist, on the fine work he had done. They could not have had a better likeness of Mr. Sissons. The only thing lacking was that they had not a better building to house the portrait more appropriately, but the present College building would be enhanced quite a lot by this very fine portrait.
(Applause.)

Afternoon tea was served at this stage, permitting those present to mingle socially and inspect the portrait.

A Toast to Mr. Sissons.

Mr. A. W. Callister said the thought of Mr. and Mrs. Manning of a portrait to hang in the College was nothing less than an inspiration. It was one of those ideas that fitted so perfectly into the circumstances that one wondered that it had not been thought of earlier. He thought that the choice of the site to hang the portrait was quite suitable, in that this Museum was the only room in the building available to the students as a common room, and if there was one aspect of the work of the Dean in the College more outstanding than another it was the way he had developed and fostered student relationships. Mr. Sissons was accessible to the students at all times. One never went into his office without finding a student in consultation about some difficulty or problem, and they all got a sympathetic hearing. Mr. Sissons had developed student association to a very high degree.

Mrs. Sissons had made a substantial contribution to that aspect of their work because her home had been open to students on Sunday afternoons for many years. Hospitality had been there for students and graduates, for meetings of all descriptions, for discussion groups, and as well as that both the Dean and his wife had attended almost every student function held over all the years of their association with the College. One could imagine what that did to the routine of a home. But it had resulted in a very high regard for the Dean and his wife.

Dr. Stanton, Mr. Manning and Mr. Davis had spoken of some aspects of the Dean's work. There were not a few of those present who could add a quota to that and say what could be said of the variety, scope and influence of the work of Mr. Sissons. He could speak

from a personal angle and remark on the co-operation and stimulus he had had in the various activities that had fallen to him since he became associated with the College. All he would say was that it had been a most satisfying experience—one that he would not readily have missed. It had been a privilege to have been associated with the progress and development that had taken place in the College during the time of Mr. Sissons, because they were a little inclined to accept and take for granted many of the achievements for which he had been responsible.

In 30 years there had been a tremendous change. They thought, for example, of their course of training and what it was in the "twenties" compared with what it was today. There had been increase and development that was not always paralleled. They had had a post-graduate course and a fellowship course for study after graduation. One thought of how recent had been their association with the Australian and New Zealand Association for the Advancement of Science—another move which came from the Dean—and the various conferences and the contributions they had made to their general information.

One could go on adding to this until it became tedious, but there was hardly an aspect of pharmaceutical affairs in which the influence of the Dean was not apparent if one looked hard enough. He thought he could say without fear of contradiction that no man had done more in this country in their time to raise the status of pharmacy. (Hear, hear.) He thought Mr. Sissons' record of achievement would glow in their annals for all time. It had been a privilege to have been associated with it, and it was something in which they could all feel a great deal of satisfaction. Mr. Callister then asked all present to

stand and drink the toast to Mr. Sissons.
The toast was drunk with musical honours.

Mr. Sissons' Response.

Mr. Sissons said with so much friendship and goodwill present they could understand if he was a little bit overwhelmed; but he asked them to bear with him while he retraced the course of the afternoon.

It was a presentation from Mr. and Mrs. Manning, two former students who had in recent years been valuable colleagues in the work of the College; and yet it might cause mild surprise that they would wish to see him "hung"—and in a Museum! (Laughter.) He appreciated the gesture making possible the hanging of this portrait in the College. One could only hope that perhaps it would turn out to be as symbolic as



Dr. Stanton unveils the portrait.

some of his friends had kindly suggested during the afternoon.

One turned next to Dr. Stanton. Dr. Stanton had known him so long and so well that it was a little bit of an imposition to ask him to undertake the office he had fulfilled. It was the great Dr. Johnson who said that fortunately a man was not on his oath when he was writing an obituary notice! Possibly that bore also on a function such as this. And yet when it came to Dr. Stanton's brief armistice with the truth, he put it over, as they had learned to know, with the charm and the grace and the finish that were so characteristic of him. While he thanked him (and he did appreciate the things that Dr. Stanton had said), he appreciated still more his restraint and the things perhaps that he did not say.

They passed then to Mr. Callister. That Mr. Callister should propose his health and should say very thoughtful and kindly things about him and Mrs. Sissons (because it was a matter of common knowledge that what had been done had been done in concert) was very pleasing and marked another long association that he valued very much. If he might say so, some of his older friends who were present might recall that when he was a youngster he had the very good fortune to come under some remarkable teachers—some teachers who addressed the heart as well as the head; teachers who thought of the individual as well as the class; and he was delighted that some of those people were present on this occasion. He thought that perhaps when it fell to his lot to undertake this work he did endeavour to recall the attitude with which they had approached their work; and there was something of the torch-bearing element in it. One did try and pass on the torch, and one was always confident that one would be outstripped by one's own students. That, he thought, was probably still the essence of their job.

The afternoon was really an occasion for the artist, and it had been a very great pleasure to meet Mr. Scott Pendlebury and to know that one was being put on record by an artist like Mr. Pendlebury, with the very happy result that they saw before them. He felt that really the afternoon should be Mr. Pendlebury's.

On an occasion like this he supposed one was almost impelled to try and tot up the accounts and see how the records stood. He thought of what one would like and what the accomplishment would be if one had earned a little respect for the way in which the job had been tackled. To have retained a few friends had been one of the satisfactions of the job. If, rather than a few friends who knew one's perversities and were willing enough to put up with them, one made a number of friends, that was very much more than one's desserts. Perhaps one of the recompenses for the teacher was that these friends included some of his own teachers who continued to remain an inspiration throughout the friendships that developed in those circumstances. He did not think one could reasonably ask for more than that one's colleagues became numbered among one's close friends and one found with the passing of time the majority of one's friends were those who had formerly been his students.

He felt very much, too, that the greatest measure of thanks should be to the audience, who had been good enough to put a perfectly good Sunday afternoon aside to come and see Mrs. Sissons and himself and to demonstrate their interest in the College and the pharmaceutical education for which the College stood. (Applause.)

WE OWE A DUTY

By Neville Smith.

Remembrance Day was a day of thoughts for the past. During that day we honoured the dead of two wars—and reverently we did it. But the Remembrance Day of 1952 was also a day of thoughts for the future. Because it coincided with the first anniversary of the issue of the Call to the People of Australia, Sir Edmund Herring, Chief Justice of Victoria, and one of the signatories to the Call, made a nation-wide broadcast to remind us that our young Queen is to be crowned on June 2, and that we owed her a duty of moral and spiritual preparation.

"At the Coronation our Queen will dedicate herself under God to the service of her people, and that means you and me," said Sir Edmund. "So the Coronation should be for us, as for our Queen, a time for dedication and an outward sign of the devotion and duty that we owe to God and mankind. The new reign is an occasion to review our life as a people, as Australians and as members of the British Commonwealth.

"At this time we should renew our loyalties to the Crown and acknowledge and accept our responsibilities to one another."

Sir Edmund then quoted Queen Elizabeth's own pledge to her people on her 21st birthday: "I declare before you all, that my whole life, whether it be long or short, shall be devoted to your service and the service of our great Imperial family, to which we all belong. But I shall not have strength to carry out this resolution alone, unless you join in it with me, as I now invite you to do."

This message has particular significance for us, as pharmacists, because of the peculiar position that we occupy in the community. Owing to the special nature of our calling we are in a position to exercise a good deal of influence in guiding public thought on this subject.

The thesis is that loyal Australians should go beyond regarding Queen Elizabeth's Coronation as a grand pageant, a romantic occasion, even as an historic event. It has a deep religious significance. The part of the Coronation service in which the Queen is anointed is a symbol that she becomes a Sovereign under Divine guidance and blessing. Many authorities regard the anointing as more important than the actual crowning and subsequent enthronement.

In our place in the community we are pledged to the ideals and standards of our profession. It is required of us that we uphold the integrity of trusted persons. We enter closely into the personal lives of those about us. Our places of business are communal centres. They are much more than mere trading centres for the sale and purchase of goods. Our advice is sought and our recommendations accepted. The people who come to us should trust us, and in return we owe a duty to them.

If we take the view that the Queen dedicates herself under God to our service, but asks that we all help to share her duties and responsibilities, then we have a duty to propagate this message. The Queen is more than a charming young wife and mother. She is more than the particular individual who will wear the Crown of St. Edward. She represents the great tradition behind all that is best in our democratic way of life. In serving her we serve the institutions built up through a thousand years of history, institutions which have been carved out of destiny by generations of our ancestors, and which, in our turn, we have an obligation to hand on to generations yet unborn.

These are solemn thoughts, but they will repay serious consideration.

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RECOMMEND VINCENT'S A.P.C. WITH CONFIDENCE!

Registration of Aliens

Amending Pharmacy Bill in South Australia

The Hon. A. L. McEwin (Minister of Health) obtained leave in the Legislative Council on October 15 to introduce a Bill to amend the Pharmacy Act 1935-1951. The Bill, which contains provisions in keeping with the recommendations of the Brisbane Conference 1951 relating to registration of persons with overseas qualifications was read a second time on October 21.

The Bill Explained.

Mr. McEwin in moving the Second Reading said:

The object of the Bill is to provide for the registration as pharmaceutical chemists of persons with foreign pharmaceutical qualifications. The position at present is that where a person has obtained such qualifications outside South Australia the Pharmacy Board can only register him if he obtained them from the Pharmaceutical Society of Great Britain or from a college or board of pharmacy recognised under the regulations. This means, in practice, that migrants coming to this State with non-British qualifications as chemists, the class of persons which the Bill is designed to assist, cannot be registered, as only a limited number of colleges or boards of pharmacy, all of which are in the British Commonwealth, are recognised under the regulations. It would not be desirable to extend the number of recognised bodies without reciprocity, which could often not be achieved, nor would it be desirable to recognise colleges or boards which required a lower standard than that obtaining in this State. In addition, the registration would be unconditional, so that there would be no way of ensuring that an applicant had a sufficient knowledge of English, of British pharmaceutical practice or of forensic pharmacy in this State.

Following a resolution passed by the Federal Council of Pharmaceutical Societies of Australia in May, 1951, the principle adopted in the Bill has been to enable the Board to deal with each case on its merits. The Board is empowered to register a person with foreign qualifications who has undergone an examination in English, and such further training as the Board considers necessary in the light of his qualifications.

The details of the Bill are as follow:—Clause 3 amends section 22 of the principal Act to provide that a person with foreign qualifications is entitled to registration after he has satisfied the Board that he has an adequate knowledge of English, has passed such examinations as the Board directs, and has served in a chemist's business for such period as the Board directs. Clause 4 contains amendments consequential on clause 3. Clauses 5 and 6 make consequential amendments respecting the forms of statutory declaration to be used in applications for registration. Last year the Pharmacy Board thought it could overcome the problem by means of a regulation, but it was found that it could not be done under existing legislation, and this Bill therefore gives effect to the desires of the Board. I think it is in line with what has been done in the medical sphere, and is a reasonable amendment which should commend itself to members.

The Hon. K. E. J. Bardolph secured the adjournment of the debate.

On the resumption of the debate on October 22 the Hon. K. E. J. Bardolph opened in support of the measure. He said:

I support the second reading, and at the outset pay a compliment to the members of the Pharmacy Board and particularly Mr. Lipsham and Professor MacBeth and others whose duty it is to train young pharmacists in South Australia. When it was first mooted that this measure was to be introduced I had some misgivings because I visualised the possibility of a rush

of New Australians to become registered as pharmacists. I offer no objection to those people being registered, but at least they should conform to the standard set by the various authorities governing the granting of degrees or diplomas. Although the standards in the countries from which they came may be high, they do not conform in some instances to those set by this and other Australian universities, or those in other parts of the British Empire. Furthermore, while there is reciprocity throughout the British Empire, it is not enjoyed by members who desire to practise in other parts of Europe. In South Australia there are 435 registered pharmacists. The course is a part-time university and part-time apprenticeship course covering four years. This Bill is for the purpose of extending the Board's power to make regulations, and the points I desire to make are that the Bill is similar to the proposal considered by the Pharmacy Board, and will necessitate the framing of regulations by the Board to provide safeguards to the public. Like all other regulations, these will be subject to disallowance by either House of Parliament. I have discussed this matter with Mr. Lipsham, who gives the Bill his benediction because it safeguards both students and the public. The Act will be administered by the Pharmacy Board, and will allow it to obtain the advice of those officers of the university who have had experience of this problem in other faculties. Upon an application by a New Australian for registration he will have to produce a statutory declaration that he has reached a certain standard, and if he can satisfy the deans of the various faculties he will be given credit for that standard to permit him to enter on a course of pharmacy.

The Hon. E. H. Edmonds: They will be subjected to some tests?

The Hon. K. E. J. Bardolph: Yes, and if necessary to examinations set by the Board. Mr. Lipsham, the Chief Lecturer in Pharmacy, his assistant, Mr. Bowey, and Professor MacBeth will ascertain what standard of training they have reached in their respective countries, and whether it is necessary for them to undertake further training in order to become proficient. The Bill does not automatically register these men on the production of their foreign certificates. It may be that some applicants do not possess a good knowledge of the English language and of Australian conditions. It would be futile to register them, no matter how proficient they are, if they are unable to express themselves in the English language or to understand the general working of an Australian pharmacy. Others will definitely lack such proficiency, and their applications will need to be considered on their merits in deciding what attendance at lectures, practical experience and examinations will be necessary. The Board will have the final say as to whether their knowledge is sufficient. It is desirable to remember that there are big differences between the practice of pharmacy as conducted on the Continent and the systems in use in South Australia, and that our own students are required to serve a four years' apprenticeship. A Board of Pharmaceutical Studies comprising professors, senior lecturers and two representatives of the Pharmacy Board has been established at the university, and applicants will be examined by this Board as to their standard of ability, and the Board will decide whether they will be permitted to enter the course.

The Hon. E. Anthony: Is there any shortage of pharmacists in South Australia?

The Hon. K. E. J. Bardolph: I have already mentioned that there are 435 registrations in force to date

and the average number of students who pass each year is 28. The number who withdrew from practice last year was 13, so in effect there are about 15 more pharmacists this year. Although there may be some dearth of pharmacists today, I am prepared to leave it to the discretion of the Pharmacy Board to determine whether these people are proficient enough to be registered. I am satisfied that pharmacy students and the public will be protected from unqualified persons compounding and administering drugs which are of vital importance to the health of the community.

The Hon. J. L. S. Bice (Southern): I support the second reading, and commend the Government for its endeavour to utilise the services of these knowledgeable aliens. The Chief Secretary emphasised the possible disadvantages associated with the matter, and stressed the fact that the Government had submitted the Bill to the Pharmacy Board and the Federal Pharmacy Board in order that they would have an opportunity of expressing their opinions. I always thought Mr. Bardolph was an architect, but after listening to him this afternoon I am sure his pharmaceutical knowledge far outweighs his architectural knowledge. I also took the precaution of submitting this Bill to a person actively associated with pharmaceutical work, and communicated with the Secretary of the Pharmacy Board. I was pleased to hear that Mr. Bardolph had taken that precaution, and he submitted facts he had obtained from the President of the Board which substantiate the information I obtained. The main difficulty associated with this Bill seems to be that relating to the use of our language. Everything connected with the registration of an alien as a pharmacist has to be placed before the Pharmacy Board, which will be responsible for permitting these people to practise. In conclusion I emphasise the necessity of protecting the public by the Board having the responsibility of providing a certificate to the effect that the migrant chemist is qualified to undertake the important work of a chemist without supervision.

The Hon. E. Anthony secured the adjournment of the debate.

The debate was resumed on October 28, when the Bill was read a second time and taken through committee without amendment.

THE FLOATING VOTE.

At last I have met the Floating Vote in person. The boys in our adolescent ward have just been holding an election. The Communists were first in the field and covered the walls with copies of their manifesto; this included such demands as "later bed-time for the older boys," and — to capture the white-coated workers — "Staff allowed to drink on duty." The Conservative candidates confined themselves to exhortation and avoided a specific programme. When the campaign was in full swing, one of the Conservatives burst into my office and said in high indignation, "Do you know that Sam is standing as a Liberal? Can't you stop him, sir? There ought not be any Liberals, they'll mess everything up!" I felt that I had heard this somewhere before, and declined to interfere. Then the Communists got hold of a swastika flag, and thought it a pity to waste it, so they renamed themselves Fascists, kept the same manifesto, and covered all the hammers and sickles with lightning flashes. The first canvass showed a neck-and-neck race. It all depended on the Floating Vote, a youth who couldn't care less about the whole thing. On polling day I discovered that the Fascists, who had been giving him a toffee a day on condition that he voted for them, had been countered by the Conservatives' promise of two toffees a day. Half an hour before the vote the Fascists made the supreme effort and gained his vote with half a banana. The result is that the Fascists are in with a minority rule, but at the first (and probably last) parliament the charge nurse pointed out that most of the demands had little relationship with reality. — *The Lancet*.

A CHALLENGE TO AUSTRALIANS

We are up against some grim facts and dangerous problems in Australia.

So here are some questions for you, me and every Australian:

1. Do I see these facts and problems?
2. Do I understand them?
3. Do I just blame "the politicians" or "the bosses" or "the workers," "the other fellow," "they" or "them," or do I realise my own responsibility and play my part?
4. Do I do my best in my own place for Australia?
5. Do I take my part, where I can, in public and community activities?
6. Do I take a proper interest in Federal, State and local politics? If I do not, what right have I to grouse?
7. If I am a Church member, do I join in my Church's work and worship?
8. Do I uphold the law at all times, or do I evade it to suit my selfish interests?
9. Do I bear in mind that everyone's work should be of some use to us all, and that "passengers" in the team have never been thought much of by Australians?
10. If I am an employer, do I deal fairly with those who work for me? Do I deal fairly in business relations? Do I try to keep business healthy and clean? Do I take an active interest in my representative business organisations?
11. If I am an employee, do I give a fair return for my pay? Do I take my proper part in my trades union? Or do I just leave it to the other man to look after my interests?
12. If I am a public servant, do I really try to serve the public? Or am I one of those who too often earn ill-will, jeers and bad jokes for a great calling?
13. If I am a member of a profession, do I always act in accord with the responsibilities of my vocation?
14. In general, can I be justly proud of the work I do, and of how I do it?
15. Am I alive to the good work done by our voluntary organisations?
16. Do I help any of the organisations which work for those in distress—for the aged, the blind, deaf, dumb, the crippled, the mentally ill, for mothers and children, widows, orphans, travellers in need?
17. Do I help such institutions as hospitals, creches, kindergartens, orphanages?
18. Do I make use of organisations designed to help us understand and meet the problems of our times at home and abroad?
19. Do I support societies for the promotion of the arts and learning?
20. Do I remember the men and women who shaped our national tradition and heritage? Do I commemorate such national occasions as Anzac Day, Australia Day and Remembrance Day?
21. Am I really trying to accept and make friends with newcomers to Australia, to understand their difficulties and to help them find their place in our national life?
22. In short, how do I honestly rate myself, spiritually, morally, mentally?

Am I a good parent?

Am I a good wife or husband?

Am I a good son or daughter?

Am I a good example to my children?

Am I a good citizen?

Am I a good neighbour?

Am I a good Australian?

(Printed for the Committee in Support of the Call to the People of Australia.)

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VARIBAN ELASTIC PLASTER BANDAGE.

Made from specially woven elastic material and evenly spread with Antiseptic Zinc Oxide Plaster. Variban provides a very firm support and yet is easily removed, leaving the site of application perfectly clean.

2½" and 3" by 3 yards (Unstretched). Also ½", 1" and 2" by 1 yard

CERABAN DIACYLON BANDAGE.

A Diacylon plaster on B.P.C. Crepe Bandage, is porous, non-irritating and permits of complete respiration of the skin. It is particularly suitable for those cases of Chronic Ulceration where the skin shows intolerance to certain ingredients of the more usual Elastic Adhesive Bandage, resulting in such manifestations as Eczema around and even remote from the Ulcer.

3" by 3 yards

CELLANBAND ZINC PASTE BANDAGE

Was the original Unna's Paste type. It possesses dehydrating and antiphlogistic properties and rapidly brings about the reduction of oedema. Respiration of the skin continues normally through the bandage. This type of bandage is described as "very safe and the least irritating support we have."

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FOR ALL MEN
at their climacteric



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Pharmaceutical Benefits Act

Amendments to the Table

The following amendments effective from December 1, 1952, are notified in Circular No. 26:-

Item No.

4	Amend price as follows:- A. & H. 1 in 1000, 1 cc. amp.	6 for 4/-		Delete all reference:- Boots. 1 gr. hypo. tab. 1 gr. hypo. tab. 1 gr. hypo. tab.
10	Amend prices as follows:- A. & H. 1/150 gr. per 1 cc. amp. 1/100 gr. per 1 cc. amp.	6 for 3/8 6 for 3/8	109	Delete the following basic price:- 1 gr. hypo. tab. 12 for 4/-
Amend basic prices as follows:- 1/150 gr. per cc., 1 cc. amp. 1/100 gr. per cc., 1 cc. amp.	6 for 3/8 6 for 3/8	122	Amend price as follows:- A. & H. 2 cc. amp. 6 for 4/-	
37	Amend prices as follows:- Wellcome. 0.5 mg. per 1 cc. amp. 0.5 mg. per cc., 30 cc. bottle	12 for 10/8 1 for 7/8	123	Add the following:- D.H.A. 25, 25 mg. tab. 25 for 4/4
Amend basic prices as follows:- 0.5 mg. per 1 cc. amp. 0.5 mg. per cc., 30 cc. bottle	12 for 10/8 1 for 7/8	125A	Fawns & McAllan. 6, 50 mg. per cc., 2 cc. amp. 6 for 7/- 25, 50 mg. tab. 25 for 8/-	
46	Amend prices as follows:- A. & H. 2 cc. amp. 5 cc. amp.	6 for 3/4 6 for 4/-	131A	Add the following:- Boots. 100, 1, 3 gr. tab. 100 for 13/-
49	Amend prices as follows:- A. & H. 1 gr. per 1 cc. amp. 1 gr. per 1 cc. amp.	6 for 4/- 6 for 4/5	132	Amend price as follows:- Talcid. 0.5 G. tab. 100 for 29/4
51	Amend prices as follows:- A. & H. 0.5 mg. per 1 cc. I.M. amp. B.D.H.	6 for 16/8	133	Add the following:- Distaqueine Suspension—Evans. 6, 3,000,000 U. vial 1 for 33/-
	0.5 mg. per 1 cc. I.M. amp. 0.125 mg. per 1 cc. I.V. amp. 0.5 mg. tab.	6 for 16/8 6 for 6/8 25 for 48/-	132	Amend basic price as follows:- 6, 3,000,000 U. vial 1 for 33/-
	Fawns & McAllan. 0.5 mg. per 1 cc. I.M. amp. Tabloid. 0.5 mg. hypo. tab. 0.5 mg. tab.	6 for 16/8 12 for 33/4 25 for 48/-	137	Add the following:- Penaquacaine G. Fortified. 6, 1,200,000 U. amp. 1 for 10/-
	Wellcome. 0.5 mg. per 1 cc. I.M. amp. 0.125 mg. per 1 cc. I.V. amp.	6 for 16/8 6 for 6/8	133	Amend price as follows:- Procillin 1 million. 1,000,000 U. amp. 1 for 23/4
	Amend basic prices as follows:- 0.5 mg. per 1 cc. I.M. amp. 0.125 mg. per 1 cc. I.V. amp. 0.5 mg. hypo. tab. 0.5 mg. tab.	6 for 16/8 6 for 6/8 12 for 33/4 25 for 48/-	149	Amend basic price as follows:- 1,000,000 U. amp. 1 for 23/4
52	Add the following:- H. F. Harvey. 25, 1, 4 gr. tab.	25 for 3/-	151	Add the following:- B.D.H. 6, 1, 50 mg. per 2 cc., 2 cc. amp. 3 for 9/4
72	Amend prices as follows:- A. & H. 1/150 gr. amp. 1/100 gr. amp.	6 for 4/- 6 for 4/-	149	Amend prices as follows:- A. & H. 2 cc. amp. 5 cc. amp. 10 cc. amp.
88A	Amend prices as follows:- Neptal. 1 cc. amp. 2 cc. amp.	10 for 10/- 10 for 13/4	151	6 for 3/4 6 for 4/8 6 for 6/-
	Amend basic prices as follows:- 1 cc. amp. 2 cc. amp.	10 for 10/- 10 for 13/4	162B	Amend prices as follows:- A. & H. 5 gr. tab. 7½ gr. tab.
89	Amend prices as follows:- A. & H. 1 cc. amp. 2 cc. amp.	6 for 5/- 6 for 5/7	171	500 for 77/7 500 for 103/4 200 for 84/11
94	Amend prices as follows:- A. & H. 1/6 gr. amp. 1 gr. amp. 1 gr. amp.	6 for 5/8 6 for 5/8 6 for 5/8	155	Amend price as follows:- Aminophylline—A. & H. 0.5 G. per 2 cc. I.M. amp. 6 for 8/-
			175	Amend prices as follows:- Tabloid. 1/10 gr. tab. 1 gr. tab.
				100 for 1/7 100 for 1/7 100 for 1/9 100 for 2/1 100 for 3/5
				100 for 4/5 100 for 5/4 100 for 6/8

181 Amend prices as follows:—

Crookes.		
20 γ per 1 cc. amp.	6 for	9/8
50 γ per 1 cc. amp.	6 for	14/8

Amend basic price as follows:—

20 γ per 1 cc. amp.	6 for	9/8
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Proprietary Index.

Add the following:—

Dataquaine Suspension 131A

HEALTH DEPARTMENT CIRCULAR

The following circular has been sent to chemists by the Department of Health:—

PUBLIC WARD PATIENTS IN HOSPITALS.

Your attention is directed to Section 7(1) of the Pharmaceutical Benefits Act 1947-50, which reads:

"Subject to this Act, and except as prescribed, every person (not being a patient occupying a bed in a public ward in a public hospital) ordinarily resident in the Commonwealth shall be entitled to receive pharmaceutical benefits."

There is evidence that many prescriptions for pharmaceutical benefits, written for the purposes of the Act, for patients occupying a bed in a public ward in a public hospital, have been presented to and dispensed by approved chemists.

As this is a breach of the Act, approved chemists are advised that all such preparations when presented for payment will be disallowed.

PENSIONER BENEFITS.

Pricing of P.M.S. "S" Group Prescriptions.

It is advised that prescriptions placed in "S" group of the P.M.S. tally sheet are to be priced exclusive of the container fee and dispensing fee.

The container fee is to be shown in the second pence column of the tally sheet, and the dispensing fee is to be claimed in the summary.

The price written on the prescription form should be the same as that claimed in "S" group of the tally sheet, and must not include the container fee nor the dispensing fee.

PHARMACY IN SCANDINAVIA

(From "The Chemist and Druggist," July 12, 1952.)

In Norway, Sweden and Denmark pharmaceutical control is very strict and is laid down by legislation. Pharmacy has reached a very high state of professionalism by definite Government legislation. Pharmaceutical specialities are registered and strict Government control is maintained over all products sold in pharmacies. In Norway and Sweden price control by law exists as well. Pharmacists and pharmacies are licensed by the State, and the number and location of pharmacies is regulated by law. Company pharmacy is not permitted by law.

Danish Medicines Act.

An idea of the legislation common in Scandinavia can be obtained from a brief survey of two Acts of legislation that have been promulgated in Denmark. They are the 1931 Act concerning poisonous and other dangerous substances, and the 1932 Act on the sale of medicines. The Medicines Act lists a comprehensive schedule of medicines and drugs, the sale and distribution of which are restricted almost entirely to licensed chemists. Hospitals, nursing homes, sanatoria, mental homes, and similar establishments, run by the Government or local authorities may operate a hospital dispensary in the charge of a graduate pharmacist, and they are permitted to buy medical goods on all the same conditions as licensed chemists. All other hospitals, public or private nursing homes and physicians' clinics must buy medical products from a licensed chemist except for serum, which they buy from the Danish Government. They are only entitled to weigh off, dissolve, dilute or distribute medicines under the supervision of the physician in charge. No other pharmaceutical operation must be undertaken in these establishments.

Medical practitioners in areas where there is no

licensed chemist may deliver medicines and dressings to their patients, although these should be obtained "in measured, sealed and tariffed portions" from a licensed chemist nominated by the Minister of the Interior. Dispensing by doctors is only permitted in areas where it is difficult to communicate with a licensed chemist, and the Minister of the Interior must grant specific permission to each doctor concerned. Under the Medicines Act, licensed chemists in Denmark may establish within their own districts and at places where no licensed chemist's shop exists, local depots for the sale of packed goods and medicines and drugs which may be sold safely without a physician's prescription.

The same law sets out the authority of the Danish Pharmacopoeia, provides for the constitution of its controlling board, and forbids any manufacturer to specialise or brand any preparation contained in the Pharmacopoeia.

The Medicines Act also lays down that each pharmacy must keep adequate stocks of all pharmacopoeial substances. Exemptions are only allowed on permission from the Danish Board of Health. All medicines dispensed in the pharmacies are subject to price control, no pharmacist being allowed to depart from the tariff. Inspection of pharmacies is part of the legal system and inspectors visit every dispensary, whether private or belonging to a public hospital.

Poisons Act.

Under the Poisons Act control is strict and the responsibility of the pharmacist is emphasised. The law covers the sale of the manufacture and import of poisons. Even agricultural workers, gardeners or foresters who wish to obtain and use poisons, must satisfy the provisions in the Act.

Merchants, general retailers, co-operative societies and horticultural organisations are allowed to sell agricultural and horticultural poisons in original packages. No breaking of bulk is permitted. The label must bear the name of the poison (in Danish if a Danish designation exists), the name and address of the seller, and the word "Poison" (in Danish) in white characters on a black ground. Each package must be provided with directions for use printed in Danish. Poisons must be kept by dealers in a locked cupboard.

Regarding medical poisons contained in Schedule 1 of the Act (i.e., the more toxic poisons), the law states that all weighing and packing must take place in a locked compartment. It is doubtful whether that is always carried out. No poisons or substances containing poisons may be delivered to a person under the age of 18. Whenever poisons are sold or supplied on prescription, an official register must be kept stating the name and address of purchaser, name of person to whom delivered, if different, name and quantity of poison purchased and the date.

The poisons law even contains regulations for the labelling of poisonous paints, the label of which must contain the word "poisonous" (in Danish) in white lettering on a black ground. Special regulations are included for dealing with cyanides and arsenic compounds for pest control and fumigating dwellings and workshops.

Section II of the Act enumerates many substances which, though not poisons, are considered dangerous, such as methylated spirits, certain commercial acids, solution of formaldehyde, acetic acid, etc. It specifically states that liquid preparations must not be delivered in milk, mineral or wine bottles.

In Finland pharmaceutical control is far less strict than in Norway, Denmark and Sweden. There is no registration of speciality products. The international convention for the control of "dangerous drugs" is applied in Scandinavia (including Finland).

In return for higher professional status and more protected dealings with the public, the Scandinavian pharmacist must by law accept a greater responsibility than, for example, his British counterpart. As in many other European countries, he is responsible for everything that is sold or delivered from his pharmacy, and he cannot invoke the aid of the manufacturer or an equivalent of the "warranty defence" of the British Food and Drugs Act.



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Realising this, many Pharmacists wisely maintain strong stocks of Johnsons Photographic Chemicals and Accessories.

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• Illustrated above are just a small selection from the Johnsons range of Chemicals and Accessories.

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Have YOU ordered your £10 parcel of B.M.L. Products?

Order your £10 parcel to-day — get these special parcel discounts!

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67-91 CLARENCE STREET, SYDNEY

The Social Sciences

Fellowship Lectures in South Australia—Continued

LECTURE NO. 4—APPERCEPTION AND HUMAN SUSCEPTIBILITY.

The lecturer dealt first with the power of suggestion and the effect of prejudice upon the particular meaning the mind places upon something perceived or heard.

He illustrated this point by asking the question: "In which hand was I carrying my books and papers when I entered the room?" After a number of the class answered in the right hand, and a greater number of the left hand, only one observer gave the correct answer: "You were not carrying anything."

In actual fact, no books had been carried. The power of suggestion rested in the words, "In which hand," and such a leading question caused the false answer to be given.

This system of leading questions is commonly used in cross-examination by counsel in courts of law and depends upon the apperception of the individual adding to what was actually seen or heard.

NOTE: And in oral examinations!

Apperception, or the addition to that which was already in the mind, could produce abnormal reactions or results, and, in the maximum addition produced delusions or insanity.

Application to Advertising.

Throughout their lives, all human beings are continuously subjected to stimuli of various kinds, e.g., by sight, hearing, taste, etc., and each individual chooses to give attention to one or more of these stimuli.

All advertising depended upon a stimulus being given to a mind more or less prepared for the production of the wanted reaction, therefore good advertising makes the maximum use of the minds of the public to which it is directed, i.e., the advertiser uses what he already knows will be in the minds of most of his readers or listeners.

The primary objective of the advertiser must be to get the attention of the recipient by either colour or size or a combination of those two aids. In general the attention attained is directly proportional to the intensity. This attention must be attained before people look at or listen to what one has to show.

The advertisement excluded as much as possible secondary stimuli which would detract from the main theme. Obviously such stimuli varied with the conditions of individual advertisements.

Attention is often achieved by special stimuli excluding devices, e.g., a flood light on a sign both focuses more attention on it, and, at the same time, excludes other stimuli which might be more apparent without this device.

Similarly, advertisers use many devices designed to exclude from the minds of people those stimuli which would be detrimental to the message desired to be perceived.

The advertiser having captured the necessary attention, must next arouse a desire to act in a certain way, that is, to create a desire to buy. In this way he creates a NEED.

The success of the stimulus to buy now depends upon the content of the advertisement and whether the need can be sustained.

No response is possible unless there is a need.

Needs varied but could be grouped into three main categories.

1. Primary Needs: These are the biological needs for food and drink, together with the sex urge.
2. Secondary Needs: These are the social needs and dependent upon what the individual had learned or acquired as being necessary from people about him. These needs are frequently fixed in the earlier years of life, because they are recognised as being desirable in his particular mode of life or in the society concerned, e.g., a motor car in our society, a pig, goat or canoe in another appropriate society.
3. Tertiary Needs: These needs are also learned or acquired but are of a more individual character than secondary needs. They are essentially of a personal character but less widely recognised as an essential need. The examples of a wireless set in a motor car or of ice-cream on top of a grilled steak would illustrate the essential difference. We usually regard tertiary needs in other people as eccentricity.

Obviously all needs are influenced by the social environment and also vary in importance with each individual.

Divergent outlooks cause some persons to consider comfort and luxury to be the more important need, whereas other persons consider economy to be the more important factor.

Also, needs generally are conditioned by economic factors in the society concerned, e.g.:

need for luxury—elaborate cars during good times
need for economy—miles per gallon for car in depressions.

The results obtainable from good advertising are therefore markedly modified by booms and depressions.

Slogans.

Advertising slogans are directed so that they appeal to one or the other of these needs.

A primary need, i.e., the escape from pain, is used in the phrase used for aspirin tablets "feel that knot of pain fade away."

Secondary needs could be illustrated by:

- (a) the competition for entry into a particular class of fortunate people in the slogan attached to a proprietary breakfast food, "Join the regulars."
- (b) the competition of sex in the race for matrimony as suggested in the invitation, "make your figure lovelier the easy way."
- (c) the social need inherent in the fear complex which caused the success of "avoid halitosis."
- (d) the need for something special had been well used by a fish canning company who found themselves unable to sell white salmon. Their

Here's how Hillcastle will Rocket Up Your Sales in 1953!

This Year's Mammoth Advertising Campaign Includes . . .

- 33** ads (including 6 color-pages) in "WOMAN"
- 9** ads in "TRUE CONFESSIONS"
- 65** ads in "WOMAN'S MIRROR"
- 9** ads in "TRUE STORY"
- 68** ads in "NEW IDEA"
- 9** ads in "TRUE ROMANCE"
- 28** ads in "AUST. HOME JOURNAL"
- 9** ads in "PHOTOPLAY"
- 25** ads in "WOMAN'S DAY & HOME"
- 23** ads in "AUST. WOMEN'S WEEKLY"



A HUGE total of 278 Advertisements!

Sydney: 345 Kent Street. Phone BX 2151
Brisbane: 119 Charlotte Street. Phone B 2681
Perth: 931a Hay Street. Phone B 7231
New Zealand: Wellington, Christchurch, Auckland

Melbourne: 277 Flinders Lane. Tel. Cent. 4084
Adelaide: 24 Charles Street. Phone W 2816
Hobart: 4 Victoria Street. Phone Hobart 3511



—AND FOR THIS YEAR A WONDERFUL LINE-UP
OF SALES-PUNCHING NEW ADS! . . .

With eye-catching illustrations, and new harder-hitting copy!

This year in the 10 Publications . . .

INECTO will get 53 ads for a total of
11,140,500 Reader Impressions.

Peggy Sage will get 23 ads for a total of
10,296,000 Reader Impressions.

ODO-RO-NO will get 84 ads for a total of
23,172,000 Reader Impressions.

Camilatone will get 43 ads for a total of
9,401,500 Reader Impressions.

HINDS will get 95 ads for a total of
18,497,500 Reader Impressions.

—In all **72,507,500** Reader Impressions!

Cash in on BIGGER PROFITS! Tie-in your local promotion with
our national advertising campaign! Write NOW for FREE blocks
or film slides, enclosing your name, address and phone number!

HTB

HILLCASTLE PTY. LTD.

advertisement, "does not turn pink in the tins," conveyed the right suggestion of a need, and so created sales.

Advertisers, therefore, endeavour to determine the common mental set of the particular section of the public (who have the perception to possess the need) for the product which they wish to sell. Frequently advertisers direct their attention to creating the perception or the need in the minds of a section of the public who had not previously any thought of having a use for a product.

NOTE: Nationally advertised medicines!

The Power of Suggestion.

The power of suggestion over individual mental sets varies very greatly.

Frequently a suggestion is received and accepted by the individual without any logical grounds. On the other hand, such is not always the case, as could be illustrated by considering hypnotism, which is an extreme form of suggestion. Here, the variety show hypnotist selects the best subjects from those who offer themselves for the experience and rejects those whom he considers are not open to suggestion.

Suggestions are more readily accepted during periods when the individual is less aware of what is taking place as in a half-waking state or in a lull or hiatus in normal routine of work or play. Here the attention is not occupied with other things, i.e., there is no outside stimuli. Fatigue also increases suggestibility.

Suggestions or the acceptance of an idea is heightened by repetition. This is very much the case in military drill, where what at first appears to be silly repetition ultimately becomes a necessity or need. This is the cause of the soldier's immediate reaction to an order. Similarly, the repetition of the slogan, "Time for a Capstan," creates the need for a smoke in the minds of many.

NOTE: We see this in our use of special bottles and labels, and the horror of the older pharmacist of any errors made by juniors.

Suggestions have no power unless the ground is fertile. A child or person of low intellect is very susceptible as compared with persons who possess a background against which the idea or suggestion is automatically assessed.

It is this background of knowledge, possessed by the women of today, which has caused the transition of the sex from their older position of suggestibility in most matters to one of almost equal proneness to dodge or resist suggestion, as is the case with men.

Suggestions and ideas depend upon the prestige of the source of the idea. The status of the physician has an important bearing upon the curing of the patient and there are many instances where special equipment is an essential part in the maintenance of prestige, e.g., the wig and robes of a judge.

NOTE: The carboy, dispensing department and white coat of the pharmacist.

The power of suggestion over the individual is increased very greatly by membership of a crowd. Cloaked by the anonymity of a crowd at a football match, most individuals will act and speak in a manner quite different from that which would mark their behaviour and words in smaller groups of two or three only.

This is a pronounced case of a common set of mind dominating reaction and this common set dominates the appeal of the advertiser and the propagandists.

Stop Press

N.S.W. POISONS ACT.

News has come in as we go to Press that the Amending Poisons Bill has passed through all stages in the N.S.W. Parliament, and that the Federated Pharmaceutical Service Guild has secured representation on the Poisons Advisory Committee.

USE OF DRUGS IN AUSTRALIA.

Senator Agnes Robertson asked in the Senate, on October 15, 1952, if the responsible Minister could state when the Senate might be able to expect a reply to the questions addressed by her to the Ministers for Health and Trade and Customs concerning the illegal use of drugs and their entry into Australia.

Senator Cooper replied that he would bring this matter to the notice of the Minister for Health, asking if the report was yet available and when it could be supplied to Honourable Members.

PENSIONER MEDICAL SERVICE.

Interesting Figures on Prescriptions.

Senator McKenna asked the Minister representing the Minister for Health the following questions, upon notice, in the Senate on September 11:-

1. Will the Minister table in the Senate and supply to Senator McKenna a copy of the formulary issued by the Government to medical practitioners for use in connection with the supply of medicines to pensioners?

2. By whom was the formulary prepared?

3. Is prescribing under the scheme limited to items contained in the formulary?

4. If not, what percentage of prescriptions under the scheme in each State since its inception has been written from the formulary?

5. What restrictions or limitations, if any, are imposed on prescribing under the scheme?

Senator Cooper, in reply, said that the Minister for Health has supplied the following answers:-

1. No formulary has been issued by the Commonwealth Government, but a Prescribers' List of frequently-used medicines has been compiled in order to facilitate payment of chemists' accounts, and to provide a handy form of reference for use of doctors. A copy of the Prescriber's List has been tabled and an additional copy has been forwarded to the Honourable Senator.

2. The Prescribers' list was prepared by a committee composed of medical practitioners and a pharmacologist.

3. Prescribing is not limited to items contained in the Prescriber's List.

4. The percentages of prescriptions written from the Prescriber's List are as follows:-

New South Wales	59 per cent.
Victoria	69 per cent.
Queensland	84 per cent.
South Australia	72 per cent.
Western Australia	64 per cent.
Tasmania	80 per cent.

5. The benefits available are: (a) any drug provided under the Pharmaceutical Benefits Act; (b) any drug (but not a medicinal or industrial gas) or preparation covered by monograph in the British Pharmacopoeia; (c) any item contained in the Prescriber's List; (d) any combination, in any form, of the drugs and preparations contained in (b) or in (b) and (c).

DON'T BE CAUGHT! WITH YOUR PRICES DOWN



EASICHANGE SPRING TENSION PRICE DISPLAY CLIPS

FIT ANY SHELF ONE INCH OR LESS

On and Off in a Flash! Price Changed in a Second!

SPECIAL PHARMACIST'S SET

Here is a complete outfit specially designed for price-ticketing all your goods easily, quickly and effectively.

SUPPLIED IN HANDY CARTONS, containing 1,400 PRICE TICKETS.

200 Spring Tension Clips.

100 Price Tickets, ranging from 15/- to £1.

630 Price Tickets, ranging from 3d. to 5/-.

And

600 Price Tickets, ranging from 5/- to 15/-.

70 Blank Price Tickets.

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N.S.W.: ELLIOTTS & AUSTRALIAN DRUG PTY. LTD., 22 O'CONNELL STREET, SYDNEY

ALFRED LAWRENCE & CO. LTD., 439 KENT STREET, SYDNEY

VICTORIA: FELTON, GRIMWADE & DUERDINS PTY. LTD., 342 FLINDERS LANE, MELBOURNE

QLD.: TAYLOR & ELLIOTTS PTY. LTD., CHARLOTTE STREET, BRISBANE.

W. AUST.: FELTON GRIMWADE & BICKFORD PTY. LTD., 297 MURRAY STREET, PERTH

SA.: A. M. BICKFORD & SONS LTD., 42 CURRIE STREET, ADELAIDE

You . . . and New Gibbs S.R.



AS YOU WELL KNOW, it

is a fact that more teeth are lost through gum troubles than decay . . . that teeth are only as safe as the gums they grow in.

That's why you should recommend a toothpaste especially designed to care for *gums* as well as teeth . . . Gibbs S.R.

New Gibbs S.R. is the only leading toothpaste that contains Sodium

Ricinoleate . . . a toothpaste that gives protection as well as whiteness.

Gibbs S.R. has a clean refreshing flavour—a rich foam and a smooth texture.

By recommending Gibbs S.R. for gums and teeth, you will be doing all you can to give your customers full dental protection.



SR 50 PPT

The Women Pharmacists' Page

Correspondent: Miss A. K. Anderson.

As this is the last edition of the "A.J.P." published before Christmas, I would like to take the opportunity of thanking the Secretaries of all States for their co-operation during the first year of existence of the Women Pharmacists' Page. I think it is generally agreed that it has been most successful and has proved of great interest to all women pharmacists. With the formation of a Women Pharmacists' Association in South Australia, we hope next year to have all States contributing to the Page.

May I wish all women pharmacists a very happy, successful and peaceful Christmas.

THE WOMEN PHARMACISTS' ASSOCIATION OF VICTORIA.

At our last meeting, held at the College of Pharmacy on November 6, our guest speaker was Miss Vera Kelly, one of the foundation members and a Past President of this Association.

In her most amusing and interesting talk entitled "Highlights in Thirty Years in Pharmacy" Miss Kelly mentioned first the difficulties which faced women in pharmacy when she was qualifying, and stressed the many improvements in working conditions and hours over the years, and also the value of country relieving experience to the newly qualified.

At the conclusion of the talk, the President, Mrs. Thompson, called on Miss J. Caird to propose a vote of thanks to Miss Kelly, after which supper was served in the Museum.

Those of us who attended the Conference in Brisbane last year were delighted to welcome Miss Gwendolyn Elliott to Melbourne during the month. Miss Elliott travelled from Brisbane by ship, and spent a few days here before returning on the "Manunda." She gave an interesting account of a new venture in Brisbane, an "after hour" dispensing service, in which 15 chemists in the southern suburbs have combined to run. It is proving very successful, and there is every indication that the scheme may spread to other districts.

Our next and final meeting for the year will be the Christmas Party on Wednesday, December 10, and the final Theatre Party for 1952 will be held at the Princess Theatre on Monday, December 15, to see Edwin Styles in "The White Sheep of the Family." Tickets are available from Miss MacGillivray. For those pharmacists who were unable to obtain tickets for the last Theatre Party for "South Pacific," Miss MacGillivray has arranged another early in January, and early application for seats would be appreciated by her.

Our Association wishes all Women Pharmacists' Associations in other States a very happy Christmas and New Year.

THE ASSOCIATION OF WOMEN PHARMACISTS OF N.S.W.

The P.A.A.N.Z. Conference will be held in Sydney in August, 1953. With South Australia on the eve of forming an Association, all Australian States can be represented at this Conference. It is a matter for all the Associations in Australia to make the second combined meeting of the women pharmacists' organisations a meeting to be remembered. Sydney extends the warmest welcome to all women pharmacists from the various States who will be able to attend this Conference.

A talk entitled "Hospital Almoning" by Miss J. Gore from the Rachel Forster Hospital on Wednesday, No-

vember 12 at "Science House" brought to a conclusion a most interesting series of talks.

Mrs. J. Fairfax presided at this meeting, and gave a special welcome to the newly-qualified pharmacists present.

We will be pleased to have with us at the Christmas Party at Chiswick Gardens Dr. and Mrs. John Voss, who will be passing through Sydney from Tasmania on their way to England. Mrs. Voss will be remembered as our President 1950-51.

The best wishes of the Association are extended to all kindred organisations in Australia, and to one and all we wish a Happy Christmas and Bright New Year.

COIN-IN-THE-SLOT MEDICINE

(Extract from "The Chemist and Druggist.")

Slot-machine medicine may be just around the corner. The "Mechanical G.P." will have to be more complicated than those that used to sell you a bar of chocolate, milk or cream, or stamp out your name on a zinc strip — remember? I visualise a row of buttons, like a cash-register, with a symptom or sign printed over each. When you press "Headache," "Tired in the Morning," "Too many Cocktails," and "Whites of the Eyes Yellow," there'll be a whirring noise and — Bob's your uncle! — out will come Form EC10 bearing your (signed) prescription, a certificate for sickness benefit, a card of instructions on diet and general behaviour, and a slip in triplicate stating your weight, height, and a diagnosis and your fortune.

Readers' Views

To the Editor.

These columns are open for the free discussion of any matter of general interest to Pharmacists. Letters under a nom de plume may be published; but each correspondent must furnish his name and address as an evidence of good faith. It must be distinctly understood that the opinions expressed by our correspondents are not necessarily endorsed editorially.

A CHURCH SERVICE FOR PHARMACY

Sir.—After listening to, and reading of, the Special Service held at St. Paul's Cathedral last Sunday morning to inaugurate the "Medical Convention," I was struck by the fact that during a career as a pharmacist of over 30 years nothing like it connected with our profession has taken place.

We have the example set before us by the medical, nursing, ambulance and legal professions, and I strongly commend the idea for an annual service to be held by the principal denominations and organised by the Society, as conducted by the Law Institute at the beginning of each law year.

Being pharmaceutically minded, I feel jealous of the other branches of the medical profession being the only sections capable of "Spiritual Values" and "Service to Others," or are we too concerned with Mammon? — Yours, etc.,

H. A. P. ANKERSON.

Caulfield, Vic., 29/8/52.

APPRENTICESHIP TRAINING IN VICTORIA.

Sir.—Now that the academic year has closed, the times are opportune to suggest a temporary rearrangement of the timetable of the Victorian College of Pharmacy whereby pharmaceutical industrial trainees will be better trained.

Legal practitioners are trained by attendance at University classes and after completing them are articled as "students," not "trainees," to solicitors. Whether "students" or "industrial trainees," the period of apprenticeship should be continuous and unbroken by the intrusion of study requirements at institutions. The pharmacist acquires his technical education at the College and his equally important professional training in the Pharmacy—and one aspect of training should not dispute with the other.

Therefore, until the system of training approximates to that of the Law, this writer would suggest that the trainees in each year attend the College full-time on alternate months and the pharmacy on the other alternate months.

The "off" months would be worked full-times at the PHARMACY. This system would relieve all concerned—employer, COLLEGE, trainee—of the following disadvantages:

- (a) As trainees spend part of the day at the PHARMACY and part at the College, much time is wasted in travel.
- (b) The employer cannot plan any effective training for the trainee; such training as he may give is incidental to the work in hand. The 40-hour week leaves no time for employer-planned galenical production, or dispensing procedures. As a "trainee" is not a "student," neither the College nor employer have any effective control over his work.
- (c) The country trainee lacks during years 1 and 2 the value of the COLLEGE contacts. The writer's suggestion would do away with transfer apprentices, since country trainees could live in hostels, board or possibly the pharmacy organisations may make special arrangements for their accommodation when attending the College during their month.

Attempts should be made to have trainees classified as "students," thereby giving the Dean greater control over their studies. Further, all members of the faculty, including the Dean and senior lecturers should in vacation time spend a little time in each of the teaching pharmacies, thereby stressing the mutual interdependence of the two training authorities.

Yours faithfully,

Malvern (Vic.), 12/11/52.

SYDNEY HULL

Legal

MURRAY BORDER VISITED BY C.I.B.

At the Corowa (N.S.W.) Court of Petty Sessions on October 30, before Mr. A. E. Hodgson, S.M., George Stewart McNeil, chemist, of Corowa, was charged with having a quantity of drugs mentioned under the Act on the shelves in view and not properly locked up as required.

Sergeant Baker, C.I.B., Sydney, said that on September 25 he visited Lane's pharmacy. There was a considerable quantity of drugs mentioned under the Act on view on the shelves and not properly locked up as required. The drugs were mostly sleep-producing drugs. He visited the pharmacy again that morning and found the drugs all properly locked up.

In answer to Mr. J. Strong, who appeared for defendant, Sergeant Baker said he had received full co-operation from Mr. McNeil. There was no suggestion of any illicit trade. Mr. Strong said Mr. McNeil

had only taken over the business on August 1. He was highly respected and was appalled by being called before the court.

Fined £10, with 12/- costs.

Cyril Herbert Lewis, chemist, of Corowa, was charged with having failed to keep a proper drug register and with having drugs mentioned under the Act displayed on the shelves and not properly locked up.

Sergeant Baker said that on September 25 he had visited Mr. Lewis' pharmacy and found that Mr. Lewis had a Victorian drug register instead of a N.S.W. one. He also had a quantity of narcotic drugs on the shelves and not properly locked up.

In answer to Mr. John Strong, Sgt. Baker said that a New South Wales drug register should have been kept. The Victorian one was not kept as well as it might have been. There was no suggestion of illicit trading.

On the first charge, defendant was fined £15, with 12/- costs, and on the second charge £5, with 12/- costs.

The S.M. explained that the difference in the amount of the fine in this case, as compared with the first case (Mr. McNeil's) was owing to the type of drugs on the shelves.

William Kenneth Wilmot, chemist, of Corowa, was charged on two counts of supplying drugs to unauthorised persons, failing to keep a proper drug register, and with having drugs on view on shelves and not properly locked up.

Sgt. Baker said that on September 25 he visited defendant's pharmacy. On telephone pads under the telephone he found two pads with prescriptions that had been received by telephone; one from Dr. Fairley and one from Dr. Eager. These prescriptions had not been signed by the doctors. Drugs mentioned under the Act were on the shelves and not properly locked up as required, and a proper drug register was not written up to date. On a visit to the pharmacy that morning he found all drugs locked up and everything in order. There was no suggestion of illicit trading.

Mr. Strong, who appeared for Mr. Wilmot, said that the two patients were old patients and had been getting prescriptions for a long time. When they called, Mr. Wilmot rang the doctors, who authorised the prescriptions by telephone. The script book had been written up to date with the drugs written in red ink, so that they were easily found for writing in the drug register. Mr. A. E. Wilmot had been qualified for 49 years and had been in business in Corowa for 47 years. Mr. W. K. Wilmot was a partner in the business with his father. They were well known for their meticulous care. There was no suggestion of illicit trading.

On each of the two charges of supplying drugs to unauthorised persons, fined £7, with 12/- costs. For not keeping drug register written up to date fined £10, with 12/- costs, and for having drugs not properly locked up fined £15 with 12/- costs.

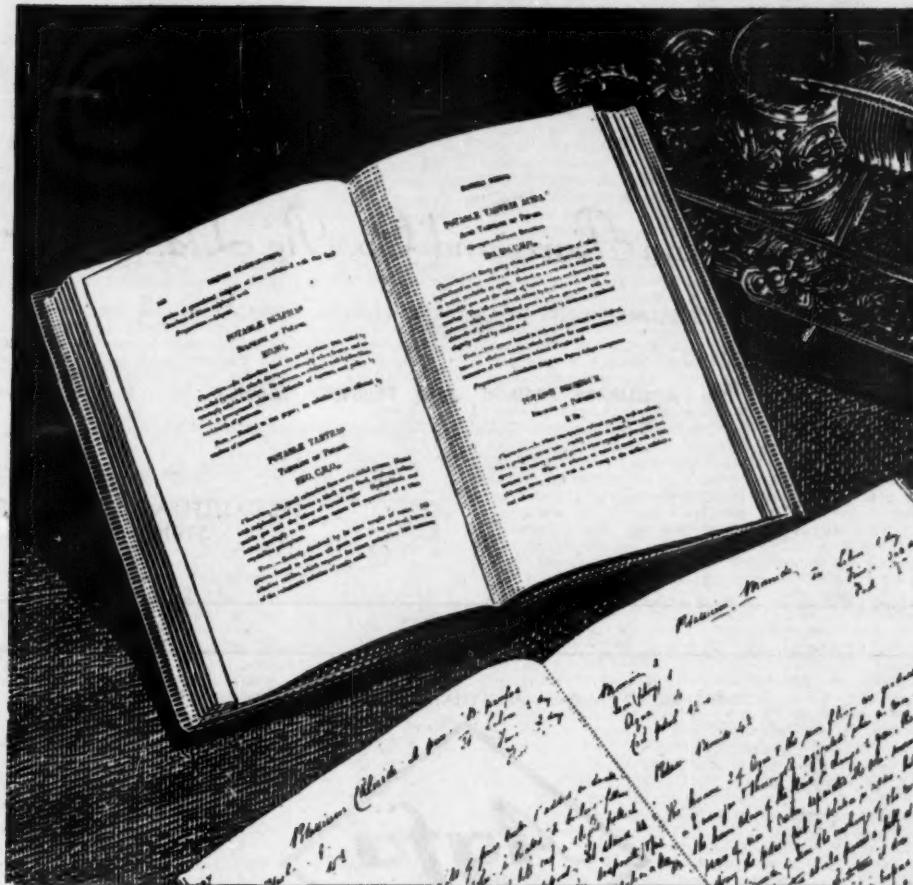
Sgt. Gordon prosecuted in each case.

PROSECUTION UNDER VETERINARY SURGEONS' ACT (VIC.)

Evidence that a puppy was given an injection to produce symptoms of disease was given at Brunswick (Vic.) court on November 24 in a prosecution launched by the Veterinary Board.

The case was one in which William Ernest Wright, partner in an animal hospital in de Carle street, Brunswick, was charged with having pretended to be a veterinary surgeon.

Desmond Taylor, private investigator, of Banksia street, Heidelberg, said that he and his wife took a puppy to the animal hospital in de Carle street, where there was a brass plate bearing the name of Dr. L. E. MacKenzie, veterinary surgeon.



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Witness asked defendant if he was a veterinary surgeon, and he replied that he was.

He said that the defendant examined the puppy, and said it had meningitis and would have to be destroyed. No charge was made.

Cross-examined by Mr. S. H. Cohen (for defendant), witness admitted that the puppy had been obtained from the Lost Dogs' Home, and had been given an injection to make it sick. His instructions were to take a dog to this place and ask for a veterinary surgeon. He found no evidence of malpractice.

William Ernest Wright said he had had 30 years' experience in the treatment of sick and injured animals. In his opinion, the puppy he examined had the symptoms of meningitis, which could be caused by an injection.

He and Dr. MacKenzie were partners in this animal hospital, which had been established for 14 years, and was the third largest in Australia. It was his (Wright's) property.

When Mr. and Mrs. Taylor called, Dr. MacKenzie had just left for England, and he carried on the hospital in his absence, attending to minor cases and sending major ones to veterinary surgeons. Dr. Mackenzie had now returned.

Defendant was fined £5, with £5/- costs.

Health Centre Opened.

One of the fundamental ideas of the National Health Service Acts is the provision of comprehensive Health Centres in which all services except those carried out in hospitals are provided. In a new housing estate in London, the County Council has opened a prototype Centre and their future plans envisage 162 other Centres, each looking after the needs of 20,000 people. The total cost is around £151,000, and next door there is a Day Nursery which cost a further £21,000; the Centre is on two floors only, and the total area is approximately one and a half acres. The Centre contains a general medical and dental practitioners' unit, a school-health unit, a child-welfare unit, an ante-natal unit, and a remedial-exercise and child-guidance unit.

An interesting feature of the Centre is that each has been provided with a separate entrance. In this way the congestion and uncongenial atmosphere of a large common entrance hall have been avoided. On the ground floor are six medical practitioners' units, each with a waiting, consulting and examination room, a dressing cubicle and exit lobby. There is also a small isolation room from which patients can be removed easily by ambulance. Also on the ground floor are the maternity and child welfare, school health and foot clinics. On the first floor are the dental suites for the local health authority's service and the general dental service, a minor operations room, sterilising room, dressings room, recovery rooms, an ophthalmic department, a doctor's clinical side room and a dental workshop. This part of the building also contains accommodation for the doctor on night duty and a common room for use by the medical and dental staff of the centre. Among the facilities to be shared are ultra-violet light and X-ray rooms. There is no pharmaceutical department, and patients will take their prescriptions to chemists' shops in the neighbourhood. To deal with drugs and dressings required for use at the Centre there is a drug store comprising two small rooms, one of which is fitted with two cupboards, a bench and a wash basin. It has been tentatively suggested that a part-time pharmacist be appointed to supervise this part of the Centre's work.

Retail pharmacists are naturally pleased with the decision not to include a pharmacy department, but it does not necessarily follow that this example will be followed in other centres. In this particular London area there are 20 pharmacies within a reasonable radius, and another may open on the housing estate on which the Centre stands. The other argument which turned the scale was the consideration of space. The County Council and the Executive Council considered that waiting space, serving counter and dispensary would be required and congestion would ensue.

The six doctors who will run their practice from the Centre have not yet been chosen as the arrangements are still under discussion. It is thought that each practitioner will be required to pay £350 per year for the facilities provided.

Suitable Containers.

One of the contractual conditions for pharmacists in the N.H.S. is that medicines shall be supplied without cost (apart from the levy) in suitable containers. Earlier this year a patient complained to the Ministry of Health that a chemist had supplied ephedrine nose drops in a corked bottle without any means of applying them. The Minister, in referring the case to the London Executive Council for consideration, stated he was advised that a suitable container for ear, eye, or nasal drops was a dropper bottle, and unless a dropper had been ordered separately, the chemist might be expected to supply a dropper bottle. On enquiry from the Minister, it was stated that the question should be decided in the light of recognised pharmaceutical practice. After careful consideration, the Pharmaceu-

Overseas News

GREAT BRITAIN

London, November 11, 1952.

Response to Ministry's Offer.

In the October News Letter, the Ministry's suggestion that contractors should accept pricing of their under 5/- prescriptions on their individual averages for a period of four months was mentioned. Throughout England and Wales, 85 per cent. of the contractors refused the offer, and only 17.9 per cent. categorically accepted; the remainder did not reply, but were regarded by the Ministry as having accepted. As yet no announcement has been made whether it will be put into effect for the 4,500 accounts considered as accepted, but it seems unlikely. The contractors' objections to the scheme seem to have been based on the fact that, although the Treasury would not lose money many individuals would do so. Also, some resentment was engendered by the feeling that the Ministry was making an attempt to split the ranks of pharmacy. The total saving in pricing time would only have been around five weeks, and arrears are still in the neighbourhood of nine months.

Forthcoming Conference.

At the Pharmaceutical Committee Conference, to be held at the end of November, the above objections will be strongly voiced as the draft agenda already contains two motions urging that the Central N.H.S. Committee should make all approaches to contractors. Other motions call for a revision of rota duty fees, and also of dispensing fees. The Central Contractors' Committee will report on the negotiations which have been going forward on dispensing fees and container allowances.

Prescription Levy.

As indicated in earlier News Letters, there was a substantial reduction in the prescriptions dispensed in June, when the prescription levy was introduced, compared with June, 1951. In September, however, the reduction was only 0.22 per cent., compared with September, 1951. The number of prescriptions per form continues to increase. In September, 1951, it was 1.59 and reached 1.72 in September this year, the highest average since this figure was first calculated.

tical Committee came to the conclusion that there is no obligation on a chemist to provide a dropper when nasal drops are supplied.

They think, however, that it would be useful if the Ministry were to suggest to prescribers the advisability of ensuring that the patient possesses a suitable dropper for the administration of nasal drops. In many cases a patient would be already in possession of a dropper; otherwise a dropper may be prescribed. It would be helpful, also, if it were suggested to chemists that they might enquire if a patient possessed a suitable dropper, if one is not ordered on the prescription.

Chemical Industry.

The general recession in trade is affecting the chemical industry adversely and selling abroad is becoming increasingly difficult. At the annual meeting of the Association of British Chemical Manufacturers the Chairman said that they had to meet intense competition overseas from the greatly expanded chemical interests of the United States and the rehabilitated production units of Germany and other European countries. Nevertheless, it was gratifying to find that, in spite of all these difficulties the exports of chemicals for the first eight months of 1952 were 3 per cent. up by comparison with the corresponding period of last year, while imports had been reduced by 6 per cent. On the other hand the picture of the dollar markets was not so encouraging, for to date this year there had been a decline of about 20 per cent. for U.S.A. and 27 per cent. for Canada. The recession in trade was not peculiar to Britain, for most countries in Western Europe were having similar difficulties and their chemical industries had been affected accordingly.

Insulin Monopoly Upheld.

The question of monopolies has been very much in the public eye since the previous Government passed an Act permitting enquiries into monopolies and restrictive practices. Recently a Commission set up under the Act found "that the arrangements now made by the British Insulin Manufacturers, individually and collectively, for the supply of insulin, operate and may be expected to operate in the public interest, and we do not recommend that any of them should be discontinued". Practically the whole of the insulin supplied in Britain is produced by Allen & Hanbury's Ltd., the British Drug Houses Ltd., Boots Pure Drug Co. Ltd., and Burroughs Wellcome & Company, the two first mentioned companies manufacturing jointly as the A.B. Partnership. During the last 11 years these four companies have been loosely knit together as the British Insulin Manufacturers (B.I.M.).

In the calendar year 1950, the total insulin sales of the manufacturers amounted to a value of £1,266,722, of which 60.7 per cent. (by value) was supplied to the home market. A labour force of approximately 250 is employed in manufacturing insulin in the United Kingdom, excluding the labour required for the sterility and biological tests; a relatively high proportion of the personnel possess professional or technical qualifications.

The greater part of the ox-pancreas used by the B.I.M. is imported. Contracts for overseas purchases are negotiated at present by Burroughs Wellcome's chief purchasing officer, after consultations with the buyers of the other concerns. The A.B. Partnership Boots and Burroughs Wellcome arrange to share all ox-glands equally with regard to quantity, and as nearly as possible with regard to quality.

Members of the B.I.M. have agreed, to the fullest possible extent and with the fullest exchange of technical information, to collaborate in a field which covers all aspects of research, development, production and assay (both chemical and biological) at all stages in the manufacture of insulin, and substances having insulin-like action.

The method of insulin manufacture as now used by each of the members of the B.I.M. is essentially the same, and combines a number of processes and technical minutiae, which together make up the B.I.M. "know-how". This "know-how" is not protected by patents and is secret.

They charge common prices and allow the same discounts. The B.I.M. told the Commission that if one manufacturer was to reduce prices all the rest would follow suit. Any manufacturer is free to sell at the lowest price he desires, but, said the B.I.M., "it is an inevitable concomitant of the free exchange of information in the technical field that the manufacturers engaged will not exploit unfairly the advantages so obtained. In practice, prices have been discussed at meetings of representatives of the manufacturers on the basis of proposals worked out and submitted by each manufacturer, with the result that the lowest basis of prices has been mutually adopted." The Commission state that they have no reason to doubt this assertion.

The Ministry of Health told the Commission that the quality of British insulin is unsurpassed. It considers the members of the B.I.M. to be extremely public-spirited in all that concerns the interests of diabetics. The Ministry says that the degree of collaboration between the insulin manufacturers is incomparably greater than that between manufacturers of any other drug, and that it approves generally of this collaboration, with the single qualification that, in its view, "competition on price is desirable"; the Ministry does not control insulin prices or investigate costs of production. The Ministry of Health also said that, with pancreas supplies at the present level, it would not encourage new entrants to the insulin field, as it considers that the present manufacturers make the best use of the available material. The Ministry of Food said that it considered that Burroughs Wellcome has made a satisfactory job of the pancreas-buying arrangements. The sixteen hospitals to whom the Commission addressed some enquiries expressed general satisfaction with the present insulin position.

The Commission did not make a detailed study of world insulin prices, but such information as they obtained and the views of a number of witnesses supported the statement made by the B.I.M. that insulin prices in the United Kingdom were now the lowest in the world, with the possible exception of those charged in Scandinavian countries.

Summing up, the Commission comes to the conclusion that the arrangements for the purchase of pancreas are efficient and satisfactory. They are impressed by the extent and thoroughness of the technical collaboration between the members of the B.I.M., and by the increase in insulin yields which has resulted from it.

In view of the close technical collaboration between the manufacturers, the understanding between them that one manufacturer should not alter his insulin prices without first informing the others does not appear to the Commission to be unreasonable. They suggest that the Ministry of Health in England and Wales, the Department of Health for Scotland, and the Ministry of Health and Local Government for Northern Ireland, as in effect the principal purchasers of insulin in the United Kingdom, should take note of prices and profits, and should exercise in the future such supervision as may appear to them to be necessary.

Manufacture of Chloramphenicol.

An application was made recently by the British Drug Houses Ltd. for a compulsory licence from the Comptroller General of Patents and Designs to enable this firm to manufacture chloramphenicol. The grant has been opposed by Parke Davis, who say that the licence cannot be granted as yet. So far no decision has been reached.

This Sheet is Perforated to Facilitate Removal for Reference.

GUIDE TO NEW PRESCRIPTION PROPRIETARIES

Our aim in presenting these references is to give a summary in regard to each product, rather than all the information available in the manufacturers' literature. Their mention in these columns does not imply editorial recommendation. Prices are no longer quoted because of frequent fluctuations.

PULMO Bailly

Supplier: Bailly Ltd., Mount Pleasant, England.
Composition:

Indications: A cough sedative and expectorant.
Dosage:

Pack:

Contains 7.2 minim guaiacol, 0.312 gr. codein and 14.4 minim acid phosphoric (50% H₃PO₄) in each fluid ounce of glycerinated vehicle.

A cough sedative and expectorant.

One teaspoonful with a little water two to four times daily, preferably before meals.

Bottles of 3 oz.

AUREOMYCIN OINTMENT 3%

Supplier: Lederle Laboratories Division, American Cyanamid Company, New York.
Composition: Each gramme contains 30 mg. Aureomycin Hydrochloride Crystalline in a petrolatum and wool fat base.

Indications: For treatment of superficial pyogenic infections of the skin. It is effective against both gram-positive cocci (streptococci, staphylococci, pneumococci) and gram-negative bacteria (coli-aerogenes group).

Directions: For local skin infections apply the ointment directly to the involved area, preferably on sterile gauze, one or more times daily as the condition indicates. In severe local infections local treatment should be supplemented by oral administration of aureomycin.

Tubes of ½ oz.

Pack:

BENACINE

Supplier: Parke Davis & Co., Sydney.
Composition:

Indications: Motion sickness.
Dosage:

Pack:

Each tablet contains "Benadryl" 25 mg. and hyoscine hydrobromide 0.33 mg.

Motion sickness.
One tablet half an hour before departure, and repeat in two or three hours if necessary or as directed.

Containers of 20 tablets.

FORTIOR

Supplier: H. R. Napp Ltd., London, through Carter & Co. (Australia) Pty. Ltd., Sydney and Melbourne.

Composition:

Indications:

Dosage:

Pack:

Capsules containing Aneurine HCl 5 mg., Riboflavin 2 mg., Nicotinamide 15 mg., Ascorbic Acid 20 mg., Ferrous Sulph. Exsicc. gr. ½, Copper Sulph. gr. 1/100 and Manganese Cit. gr. 1/100.

Peripheral neuritis, neuro and industrial dermatitis, stomatitis, glossitis, debility and anaemia of pregnancy and lactation, sprue and coeliac disease. Adults: 2 capsules daily.

Children: 1 capsule daily.

Bottles of 25 and 150 capsules.

UROLUCOSIL

Supplier: William R. Warner & Co. Ltd., London.
Composition:

Indications:

Dosage:

Pack:

Tablets containing 2-sulphanilamide-5-methyl-1-thio-3-4-diazole.

In B. Coli infections of the urinary tract—acute cystitis, acute pyelitis, etc.

0.1 to 0.2G. four hourly.

Tablets (0.1G.), Bottles of 25 and 250.

PYROPAX

Supplier: Grosvenor Laboratories Pty. Ltd., Sydney.
Composition:

Indications:

Pack:

A sterile cream containing ethyl aminobenzoate, propylene glycol, tyrothricin and chlorophyll in a water miscible ointment base.

Burns, abrasions, etc.

Tubes of 1 oz.

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Victoria: B. J. Goodman, c/o. Doward & Co., 328 Flinders Lane, Melbourne.

Western Australia: Geoff Martin & Son, 64 Pier Street, Perth.

Queensland: S. H. Stewart, Hamilton Street, Brighton, Sandgate, Brisbane.

Tasmania: H. T. Grounds, 4 Victoria Street, Hobart.

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GUIDE TO NEW PRESCRIPTION PROPRIETARIES (Continued)

MERCAZOLE

Supplier: British Schering Ltd., London.
Composition: Tablets of 1-methyl-2-mercaptoimidazole.
Indications: Hyperthyroidism or thyrotoxicosis and pre-operative preparation of thyroidectomy.
Dosage: Initially, 5 mg. to 10 mg. daily in divided oral doses at 6,8 or 12-hourly intervals. In refractory cases a dose of up to 5 mg. 8-hourly may be required at first. As soon as the basal metabolic rate begins to fall, dosage should be gradually reduced until a satisfactory maintenance dose is reached. This may be in the order of 0.5 mg. to 1 mg. daily.
Pack: Tablets of 2 mg. (scored) and 0.5 mg. in containers of 100.

IVIRON

Supplier: British Schering Ltd., London.
Composition: Saccharated iron in a stable solution for intravenous injection.
Indications: Iron-deficiency anaemias, and whenever it is desirable to effect a rapid rise in the level of blood haemoglobin.
Dosage: According to individual requirement, or as follows:
 1st day . . . 2.5 cc. (50 mg. Fe)
 2nd day . . . 5 cc. (100 mg. Fe)
 3rd day . . . 10 cc. (200 mg. Fe)
 Subsequently, 10 cc. twice weekly, or as indicated by the haemoglobin level.
Pack: Ampoules 5 x 2.5 cc.
 " 5 x 5 cc.
 " 50 x 5 cc.
 " 5 x 10 cc.
 " 25 x 10 cc.

TESTAFORM

Supplier: The British Drug Houses (Australia, Pty.) Ltd., Sydney.
Composition: Testosterone Propionate B.P. in Aqueous Suspension.
Indications: All conditions in the male associated with testicular insufficiency; the male climacteric; prostatic enlargement, angina pectoris, etc. In the female for irregular uterine bleeding; metrorrhagia; frigidity; mammary carcinoma, etc.
Dosage: From 5 to 200 mg. by intramuscular injection according to condition.
Pack: Ampoules of 1 ml. containing 5 mg., boxes of 6 and 25.
 Ampoules of 1 ml. containing 10 mg., boxes of 6 and 25.
 Ampoules of 1 ml. containing 25 mg., boxes of 6 and 25.
 Ampoules of 1 ml. containing 50 mg., boxes of 3 and 12.
 Ampoules of 1 ml. containing 100 mg., boxes of 3 and 12.

RIMIFON

Supplier: Roche Products Limited.
Composition: Isonicotinyl hydrazine.
Indications: Active pulmonary tuberculosis.
Dosage: 2 mg./kg. body weight daily (three tablets daily for an adult). This can, if necessary be increased up to 4 mg./kg., particularly in younger patients. The tablets are taken in three to four divided doses immediately after meals.
Side effects: Constipation, dizziness, etc. Concurrent use of atropine, ephedrine and amphetamine should be avoided as they may increase the side effects.
Pack: Tablets (50 mg.), bottles of 100 and 1000.

A Special Care Service dealing with Prescription Proprietaries is now available.
 Subscription, £1/3/- per annum.

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 99 Gouger Street. Phone: FA 2011.

HOBART: H. GROUNDS, 4 Victoria
 Street. Hobart 3511.

BRISBANE: L. W. D. ROCHAIX & CO.
 80-92 Eagle Street. BO 677.

Trade Notes

Mr. David Elliot, a Director of William Pearce & Co. Pty. Ltd., 149 Castlereagh st., Sydney, has taken charge of the company's Ethical Drug Branch. By concentrating on the distribution of ethicals, Mr. Elliot will be in a position to give personal attention to the requirements of the company's chemist clients.

ELLIOTTS AND AUSTRALIAN DRUG PTY. LTD.

Mr. F. W. Macpherson, Sales Manager and Director of Elliotts and Australian Drug Pty. Ltd., has been appointed a Director of Drug Houses of Australia Ltd. **Mr. H. Gilbert**, formerly Assistant Sales Manager, has succeeded Mr. Macpherson as Sales Manager.

ISONIAZID TABLETS.

(Iso-nicotinic Acid Hydrazide.)

The Hamilton Laboratories Ltd., of 217 Flinders street, Adelaide advises that the above new product is now available for distribution at the following prices:

	Wholesale	Retail
50 mg.—		
Bottle 100	11/- each	15/6 each
Bottle 500	41/6 each	15/6 each

COMPLEVITE AND PREGNAVITE TABLETS.

Fassett & Johnson Ltd., of Sydney, in a letter dated November 11, 1952, has notified the following new prices, which become operative immediately:—

	Size	Trade (Dozen)	Consumer (Each)
Complevite Tablets . . .	60's	56/- dozen	7/- each
	120's	91/- dozen	11/5 each
Pregnavite Tablets . . .	60's . . .	65/- dozen	8/2 each
	120's	110/- dozen	13/9 each

A NEW ANTIBIOTIC SUPPLEMENT FOR ANIMAL FEEDING.

Glaxo Laboratories (Aust.) Pty. Ltd. has announced the introduction in Australia of its antibiotic animal feed supplement—"Vetspen Ration."

"Vetspen Ration" is a blend of 1 per cent. procaine penicillin in a soluble, powdered base. It is capable of being easily mixed with dry animal feeds and mashes, or dissolved in drinking water.

"Vetspen Ration" is available in 8-ounce tins, which retail at 19/6 each. The trade price is 168/- per dozen. Each tin contains a 1 ounce food measure.

ALLEN & HANBURY'S (AUSTRALASIA) LTD.

The above company has asked that we record that, as from November 1, the undermentioned prices became operative for Ergometrine Maleate (Inj. Ergomet. Maleat B.P.), namely:—

0.5 mg. in 1 cc. amp.	Box of 6	12/6
	Box of 12	25/-
	Box of 100	180/-

A circular from the same company under date November 7, contains a lengthy list of changes operating from November 10. Copies of these notifications may be obtained from the company at 418 Elizabeth street, Sydney.

THE BRITISH DRUG HOUSES (AUSTRALIA. PTY.) LTD.

The latest list of alterations of prices issued by the above company gives details of the prices for Ergometrine Maleate and Pyridoxine Ampoules which operated as from November 1.

A copy of the letter of advice may be obtained from B.D.H. at 250 Pitt street, Sydney.

A further lengthy list of new reduced prices circulated on November 14 by The British Drug Houses

(Aust. Pty.) Ltd. deals with the following products: Anacobin, Elixir Valibrom, Elixir Valibrom Co., Ergometrine Maleate, Estigyn, Ethisterone, Lutoform, Methyl, Testosterone, Progestin, Pyridoxine Ampoules, Testaform, Testosterone, and Testosterone Propionate.

SIGMA MEDICAL DETAIL STAFF.

Sigma Co. Ltd., Melbourne, is pleased to announce that its recently-extended medical detail staff now comprises:

Mr. H. F. Rodgers and Mr. N. P. Roeszler, with duties in Melbourne and Victoria; Mr. A. McBurnie and Mr. L. E. Schuster in Sydney and New South Wales; Mr. R. Pearce in Brisbane and Queensland; and Messrs. O. E. Woods & Co. in Perth and Western Australia. This service is personally supervised by Mr. G. T. Peterson, Ph.C., F.P.S., who also conducts a medical information service for doctors and chemists. Mr. Peterson's office address is: Developmental officer, Sigma Co. Ltd., P.O. Box 48, Port Melbourne, S.C.7, Victoria

P.A.T.A. PRICES.

P.A.T.A. of N.S.W.

Notified 3/11/52—

		General Section: Alterations.
	Soul Pattinson (Laboratories) Pty. Ltd.	
2/9	Carlista Mineral Spring Salts	Wholesale 24/- doz.
	Parcel Advantage:	
	3 doz. lots	23/3 doz.
	6 doz. lots	22/6 doz.

Notified 17/11/52—

		Soul Pattinson (Laboratories) Pty. Ltd.
	Scott's Compound Glycerine and Linseed.	
	Parcel Advantage: 6 doz. lots 5 per cent.; 12 doz. lots 7½ per cent. discount. Sizes may be assorted for discount.	

PRESCRIPTION PROPRIETARIES CARD SERVICE.

The 15 cards issued for the month of November contained references to the following products:—

Card No.	Product.
A : 47	Adexocal.
A : 48	Aureomycin Otic.
A : 49	Aureomycin Nasal.
A : 50	Argotone Ophthalmic.
A : 51	Aqu. illin.
C : 50	Codiphene Plus.
D : 35	Dionosil.
H : 15	Hepovite Tablets.
M : 28	Methanide.
N : 32	Neophryn.
P : 80	Pelazid.
P : 81	Pantothenic Acid (Roche).
S : 29	Sedal.
T : 26	Tuscodin (Knoll).
T : 27	Talecid.

The 15 cards to be issued shortly for the month of December, concluding the 1952 series, will deal with the following products:—

A : 52	Auralgan.
B : 40	"Berculon" A.
C : 51	Cerevon Elixir.
C : 52	Cilicaine Simplex.
F : 10	Forticil.
G : 8	Glutamic Acid (Andrew's).
H : 16	Hypon.
I : 7	Isoniazid (Hamilton).
O : 10	Otosmosan.
O : 11	Oestrin Nasal Spray.
P : 82	Phemycete (D.H.A.).
P : 83	P.A.S. Sodium (Andrew's).
P : 84	Pronestyl.
T : 28	Thyboestrol.
V : 21	Vazadrine.

Subscriptions (£3/3/-) to the P.P. Card Service may be commenced at any time while stocks last. Order,

accompanied by cheque, should be addressed to: The Manager, "The Australasian Journal of Pharmacy," 360 Swanston street, Melbourne.

WRIGLEY'S SEEKS MARKET EXPANSION.

Mr. G. Ekblade, Managing Director of Wrigley (Australasia) Pty. Ltd., and Mr. E. J. Moloney, Director of J. Walter Thompson (Aust.) Pty. Ltd., snapped at



Mr. E. J. Moloney (left) and Mr. G. Ekblade.

Mascot airport prior to their departure by Quantas. Mr. Ekblade will be looking into Malayan and Indonesian markets.

Mr. E. J. Moloney, after spending some weeks with Mr. Ekblade, will then continue on to Hong Kong, Tokyo, Manila, Bangkok and on to Bombay, Rome, Geneva, and finally to London. He will return via New York, Chicago and San Francisco.

EARLY POSTING OF CHRISTMAS MAIIS.

Christmas time imposes a great amount of additional work on the Post Office; as during the period preceding Christmas Day, more than twice the usual number of postal articles are dealt with.

The Department seeks the co-operation of senders who can assist by observing the following points in regard to their mailing activities:

- (a) Post commercial mail as early as possible in the day, and as far as is practicable at least two hours before the mail closing times.
- (b) Separate large postings into bundles containing articles for city, suburban, country and interstate addressees.
- (c) Hand them in at a Post Office rather than post them in posting receptacles in the usual way.
- (d) Endeavour to arrange for catalogues, calendars, and other advertising matter to be lodged as early as possible, but not later than December 12.
- (e) Take special care in the preparation of mail matter by ensuring that addresses are clear and correct, the contents of packets, etc., are adequately wrapped, and that enclosures for envelopes with transparent panels are folded in a manner to prevent the address from slipping out of register with the panel.
- (f) Make progressive postings throughout the day and do not let mail accumulate for posting during the late afternoon.

BURROUGHS WELLCOME & CO. (AUSTRALIA) LTD.

Group photograph taken at the Fourth Conference of Representatives held at the Sydney office of the company during October, 1952.

Standing (left to right): Messrs. W. L. Hopgood (Melbourne), R. Mason (Brisbane), W. J. Kunert (West Australia), S. G. Kent (N.S.W. Country), A. F. Miller (Melbourne), J. S. Granger (Sydney), A. O. Squires (Head Office), F. Andrews (Melbourne), J. K. Allen (Sydney), M. W. Ford (Queensland Country), R. J. Neill (South Australia), R. C. Williams (Sydney), H. E. Rogers (Victoria Country), J. B. Bohrman (N.S.W. Country).

Seated (left to right): Messrs. J. Doenau (Head Office), C. C. Deeth (Head Office), S. G. Brown (Head Office), T. C. Harveyson (Brisbane), A. Fanthorpe (Head Office), P. A. Smith (Director and General Manager), R. B. Tattersall (Head Office), W. G. Twining (Melbourne), W. H. Baigent (Sydney), K. J. C. Johnson (Head Office).



Conference of Representatives of Burroughs, Wellcome & Co. (Aust.) Ltd.

BRITISH PHARMACEUTICALS PTY. LTD.

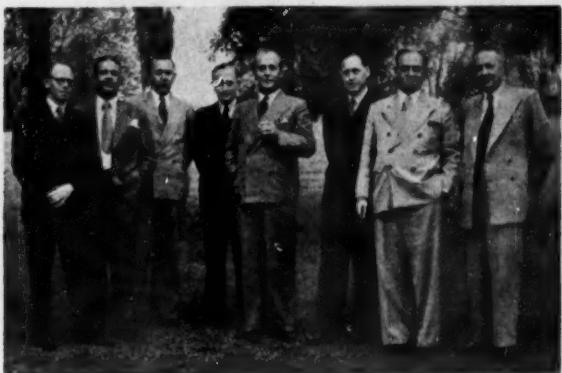
Interstate Conference.

During October an Interstate conference was held in Melbourne by the representatives of British Pharmaceuticals Pty. Ltd.

It was presided over by Mr. T. L. Jamieson, a Director of the company, from Wellington, N.Z., and was attended by representatives from all States.

The guest of honour was Mr. E. Bailey, General Sales Manager of Organon Laboratories Ltd., London, for which British Pharmaceuticals Pty. Ltd. is Australian distributor. Mr. Bailey was on a world tour, during which he had already visited the U.S.A., Honolulu and New Zealand.

Aspects of local merchandising were discussed by the representatives and a highlight of the conference was an address by Mr. Bailey, in which a brief historical



This group was photographed on the Yarra Bank during a break in the conference of representatives of British Pharmaceuticals Pty. Ltd. L. to r.: Messrs. H. W. Westwood (Melb.), S. A. Sheaves (Brisbane), S. Harrold (Perth), J. O'Sullivan (Melbourne), E. Bailey (Organon Labs. Ltd., London), T. L. Jamieson (Wellington, N.Z.), J. A. Christie (Adelaide), W. C. Noble (Sydney).

review of Organon Labs. was given as one of the world's leaders in hormone research and manufacture.

Many important advances in medicine — the discovery of A.C.T.H. is only one — are attributable to their research.

Representatives received previews of several new and important preparations which will be available in Australia in the near future.

An interesting glimpse of their medical service was given by a description of the Organon Library — probably the largest medical library in Europe — where a staff of librarians and translators are constantly employed under the Director of Research.

The whole conference was unanimous on the importance of the pharmacist as the final link in the chain between manufacturer and patient, and stressed the need for every possible service to the retailer.

Chemists with any problems connected with the hormones (an attractive handbook is available free of charge) or with the preparations of Martindale (Savory & Moore), Rybar Laboratories, Kaylene Ltd., Coates & Cooper, and Serocalcim are invited to contact British Pharmaceuticals Pty. Ltd., 8-12 Bathurst St., Sydney (G.P.O. Box 3967), where friendly co-operation is always assured and every possible assistance will be given.

Market Report

LONDON MARKET REPORT.

November 11, 1952.

The downward tendency in world prices is still affecting the London Drug Market and it has had the secondary effect of causing a spot shortage in some commodities, as importers have reduced the size of their normal orders.

Cloves, however, are still moving upward and the Zanzibar variety have reached the new high level of 11/3 per lb.; the price was only 5/2 per lb. at the beginning of the year, and during the war it varied between 2/- and 3/-.

Other spices are easier.

Some African ginger has been sold at 100/- per cwt., and Jamaican No. 3 is 27/6 above this price.

West Indian nutmegs vary from 1/8 to 3/- per lb., according to quality.

Pimento, however, is firm at 2/2 per lb.

Cardamoms are cheaper.

Aleppi greens can be bought at 16/6 on the spot, with shipment figures around 12/-; seed is 23/- per lb., and 19/-, c.i.f.

Turmeric is cheaper at 60/- per cwt. on the spot.

U.S. shippers now quote fully 310/- for this year's cascara bark, and 1951 peel is 330/- on the spot, duty paid.

Senega root is worth 15/- per lb. here, and there are no shipment offers below 14/3 per lb.

Among the pharmaceutical gums Kordofan has fallen back slightly; holders ask around 104/- per cwt., and new crop for shipment at the beginning of 1953 is 97/6 per cwt.

Little interest has been shown in karaya, and No. 1 gum is around 215/- per cwt.

It is believed that an export tax may be placed on Sumatra benzoin of approximately £5 per cwt., so that some holders have raised their prices above the £27 per cwt. ruling recently.

Among the balsams Tolu is 24/- per lb. on the spot, and 22/6, c.i.f.; Peru is 13/6 on the spot.

Ergot has been easier; shipment prices are 14/9 per lb., with spot rates at 17/6.

Indian valerian has been on sale at 130/- per cwt., but the Belgian variety is unchanged at 210/-.

Quillain bark is selling freely at 135/- per cwt.

Ipecacuanha has been quiet and the Nicaraguan variety is 42/6 per lb., and 40/-, c.i.f.; Columbian is 2/- per lb. below these rates.

Sales of essential oils have been of a routine character.

Aniseed has gone back to 8/6 per lb., and shipment rates are approximately 1/- per lb. under this figure.

Lemongrass has lapsed again; spot sales have been reported at 7/3 per lb.; and shipment prices are about 6/8.

Eucalyptus has found few buyers; prices vary from 6/- to 6/9, according to content and pack.

Palmarosa is cheaper at 50/- per lb. and 47/-, c.i.f.

There has been a further fall in manufacturers' rates for caffeine and theobromine. The new rates for single lb. lots are: Caffeine alkaloid, anhydrous, 25/6; alkaloid B.P., 25/-; citrate, 18/-; sodium benzoate, 19/-; sodium iodide, 31/-; sodium salicylate, 20/-. Theobromine alkaloid, 28/6; calcium salicylate, 23/-; sodium benzoate, 22/6; sodium salicylate, 21/6. In each case 7-lb. quan-

tities are 1/- less, and 28-lb. quantities 2/- less than the above prices.

Thymol has been reduced to 23/- per lb. in 7-lb. lots.

Some makers of ephedrine have reduced their rates for the hydrochloride by 6d. per oz. to 5/4 per oz. in 16-oz. lots.

Lactic acid is lower by 3d. per lb. at 3/9 per lb. in carboys, and 4/4 per lb. in quantities of 3 winchesters.

Calcium lactate is 2/10½ per lb. in 1-cwt. lots, and 3/8½ in 7-lb. lots. The equivalent rates for calcium and sodium lactate are 4/6½ and 5/2½.

THE BIG STORE, THE SMALL MAN AND SERVICE TO THE PUBLIC

By Elliott and Elliott.

In these days when we hear on all sides that the large concerns can do everything so much better than the small people, it is news to hear something rather different. What is really meant is that these large organisations have every chance to serve the public well because of the fact that they can hold larger and varied stocks, thus giving the customer a vastly larger choice. They can offer specialist services to the people, and it is well known that no one man can be an expert at everything.

But the large stores must be run at a profit, and to this end they tend to—

- (1) Open a store **only** in a busy, central position. That store must be fed from a large district, and people must travel by bus or tram to this large centre.
- (2) Cater for the majority of the people who want the things in general demand. If 80 per cent. of the people deal with them for these ready-selling lines, it is not their wish to cater for those few who have special requirements.
- (3) Keep a service going, provided that it **pays** to keep it going, and does not require its loss to be made up by some other section of the business.
- (4) Standardise the stock, so that, instead of having ten different makes of a particular product, each product being in four different sizes (and perhaps four different colours or styles), they have **two** popular makes only in the medium size. This makes for simplification of stock, a very essential thing in large-scale organisation. This simplification of stock would be carried out to a much larger extent than at present, if the small man's business could be eliminated.

It should be noticed that we have used the word "tend" in the above instances. These are trends in all big business affairs. The small pharmacist is rather different. Driven from the tip-top expensive business positions by the large stores (or unable to pay the rents and rates required there), he settles himself in the **small** places, always expecting to make them pay by being handy to the local people. He is known as "Smith's little shop at the corner," always "at call" when required. He has not been known to keep records to enable him to decide whether or not it **pays** to keep a number of lines or whether it **pays** to be "in attendance" only when wanted.

So the small pharmacy gives a good service to the community, a service that it would never pay the big stores to give because of their heavy overheads. It is this pharmaceutical service, in its quiet way, that is often overlooked in times when the authorities take stock of these matters. When statistics are collected, they show, in some places, that economically there are "too many" shops for the population.

Classified Advertisements

The charge for these Advertisements is 2/6 per line, with a minimum of 7/6, payable in advance.

PHARMACY FOR SALE early in 1953, at East Melbourne. Old established business at the corner of Wellington Parade (Melbourne's main Eastern Highway) and Powlett Street, Opp. Jolimont Railway Station and Melbourne Cricket Ground. Adjacent to Melbourne's leading private hospitals. The pharmacy is well stocked and the fittings of a modern all glass scheme.

The dispensary is roomy and well lit from side street and suitable for extension of the business. All particulars on personal application.

N.S.W. COUNTRY PHARMACY, turnover £16,000, for sale after New Year. £3000 plus stock and fittings (total price about £7500). Reply to: "No. 251152," c/o "A.J.P." Office, 360 Swanston street, Melbourne.

QUALIFIED ASSISTANT WANTED for part-time work. Hours and wages by arrangement. Clive Waters, Hampton (Victoria). Phone: XW 4425.

MEDICAL REPRESENTATIVE
Required by well-known Overseas Pharmaceutical Organisation, to detail doctors and hospitals in Brisbane and Queensland.

Pharmaceutical or medical background necessary. Detailing experience an advantage. Own car preferred.

Apply with full particulars, stating age, experience, salary required, to: "Pharmacy," c/o Mr. J. B. Dillon, 3 Lombard street, Glebe Point, Sydney.

COMMONWEALTH OF AUSTRALIA. DEPARTMENT OF HEALTH.

Applications are invited for the position of Pharmacist, Grade I, Darwin Hospital.

Salary: £872-£908 per annum. In addition to salary a district allowance of £150 per annum if married, or £125 per annum if single is payable. Subject to the provisions of the Income Tax Assessment Act, a zone allowance deduction of £120 per annum may be allowable. Salary up to the maximum of the range may be paid to a suitably experienced applicant.

Duties: Dispensing at the hospital.

Qualifications: Applicants must be qualified Pharmaceutical chemists.

Applications (stating age, experience, marital status, war service (if any)) to the Director-General of Health, Canberra, by December 22, 1952.

ALBERT KOCH, Qualified Analyst, 469 Little Collins Street, Melbourne. Food and drugs tested for purity. Phones: MU 1922 and LF 1069.

C. A. SMYTHE & CO., Public Analysts and Consulting Industrial Chemists, C.B.S. Building, 90 King William Street, Adelaide. General analysis of drugs, foodstuffs, metals, etc. Duplication and substitution of products. Technical research, plant design and legal testimony. Bacteriological examination of foods, canned foods, etc. Special rates to pharmacists. Telephone: Central 601.

ANALYTICAL SERVICE, O. A. MENDELSON & CO. (O. A. Mendelsohn, B.Sc., F.R.I.C.), Public Analysts and Consulting Industrial Chemists, 386 Flinders Lane, Melbourne; and at Adelaide, Sydney and Brisbane. Professional discount on fees to pharmacists.

8,000,000

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Every man, woman or child throughout the length and breadth of Australia is a potential customer for BAND-AID ADHESIVE BANDAGES! Small accidents are happening in the course of every day — not once or twice — but dozens of times! And in your district, too. That means big business for Band-Aid Adhesive Bandages and big business for you! Get your full share! Arrange window displays, counter displays and tie in completely with this biggest Band-Aid Adhesive Bandages selling drive ever!

NATIONAL ADVERTISING
will tell them HOW, WHEN and WHERE
Swing into the Grand Sales Drive NOW

Press and Radio are the spearheads of the biggest Advertising in BAND-AID ADHESIVE BANDAGES history. In the press, large advertising spaces with brand new story! Announcements in Quis Kids, Australia's favourite Sunday Quiz Show, and a flood of spot announcements on capital city and country stations.

STOCK UP... DISPLAY... WATCH 'EM SELL

Stock up now with the complete BAND-AID range, waterproof in packets of 12, 24, 50, Plain in packets of 12, small and large, elastic and plastic waterproof. Display them all, prominently.

The range of **PROCILLIN** preparations has been revised and now comprises . . .

PROCILLIN® AS a ready mixed aqueous suspension containing 900,000 units in 2 ml.

PROCILLIN 600,000 (fortified). Contains 300,000 units of procaine-penicillin G with 300,000 units of sodium penicillin G in oil with 2% aluminium monostearate.

PROCILLIN One million. Contains 1,000,000 units of procaine-penicillin G in oil with 2% aluminium monostearate.

* Trade Mark.

The above Procillin products are packed in a disposable syringe with needle attached and are available under the Pharmaceutical Benefits Act.

*

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L. Fairthorne & Son Pty. Ltd.	Launceston and Hobart
Felton, Grimwade & Blackford Pty. Ltd.	Perth and Kalgoorlie
Felton, Grimwade & Duerdin Pty. Ltd.	Melbourne
Taylor's Elliotts Pty. Ltd.	Brisbane, Townsville and Rockhampton

Quicker turnover - biggest profits

WITH THE

NEW

ASCO-TIN DISPLAY OUTER

Each sale from this display means a bigger percentage of profit for you, and your customers get Ascotin—the Analgesic that most Australian hospitals prefer.

If you are not getting your share of sales perhaps your clients don't know you sell Ascotin. Continually detailed and continuously prescribed you only have to display Ascotin to sell it. Ask your Faulding representative to let you have the new fast-selling, profit-packed Ascotin counter display package.



★ Highly profitable on each sale.

★ Used in hospitals throughout Australia.

★ Most effective formula.

★ Produced in the most up-to-date compressed medicine plant in the Southern Hemisphere under ideal conditions.

F.H.F.A

F. H. FAULDING & CO. LTD.
AUSTRALIA

"IF IT'S FAULDING'S — IT'S PURE"

Commonwealth and State News

WESTERN AUSTRALIA

PERSONAL and GENERAL

State News

Miss A. Ellsworth was in charge of Miss V. Garcia's pharmacy during the latter's illness last month.

Mr. J. Burke has opened a new pharmacy at South Bunbury. Mr. A. D. Plenderleith assisted during the moving operations.

Mr. B. L. Smyth, of Ambassador's Pharmacy, was married at St. Mary's Cathedral, Perth, on November 6. The honeymoon was spent at the Paragonorus.

Mr. F. A. Yeates, W.A. manager for F. H. Faulding & Co. Ltd., returned to Perth, on October 23, after a seven months' trip to England and the Continent.

Mr. G. H. Lappin of South Perth, has taken a well-earned holiday visit to Tasmania. Mr. R. W. Emalie is in charge of the pharmacy.

Mr. H. W. Chayter, who recently resigned his position as manager of Felton, Grimwade & Bickford's factory, relieved Mr. A. A. Baxter, of Wembley Pharmacy, last month.

Mr. and Mrs. R. S. F. Greig, of Brisbane, passed through Fremantle per the "Orcades" on November 20. They were returning from a six months' visit to England. Most of the few hours' stay in port was spent inspecting the new Royal Perth Hospital, where they were entertained by the chief pharmacist, Mr. A. Parry.

Wedding.—**Miss P. Steenholdt** was married to Mr. M. Lewis on November 22. Mrs. E. M. Hardman was in charge of the F.S. Dispensary at Subiaco whilst Mrs. Lewis was on her honeymoon.

Inquest.—At an inquest held on October 30 into the death of Herbert Anthony McCrae, formerly pharmacist at Hollywood Hospital, the Coroner found that deceased died from morphine poisoning, self-administered, and that there was evidence that he was depressed at the time.

Pharmacy Fire.—Damage to stock and fittings estimated at £2,000 was caused when a fire gutted the pharmacy of Mr. A. M. Steinthal, at Mosman Park, on November 1. The cause remains a mystery, as everything appeared to be in order when the pharmacy was closed at midday and the fire did not occur until about 5.0 p.m.

P.D.L. Notes.—Nominations for members of the Local Board were called last month, but as only the retiring members, Messrs. T. D. H. Allan, R. I. Cohen and H. D. Fitch, nominated, no election was necessary. The annual report, which is now in the hands of members, shows membership in this State 160, an all-time record. Fifty-three new members and 15 deletions were recorded for the year ending September 30, 1952.

PHARMACEUTICAL SOCIETY OF W.A.

At the monthly meeting of the Pharmaceutical Society of W.A., held on October 22, Dr. L. Henzell, Commissioner of Public Health, gave a very interesting address on the subject of Public Health. After outlining the development of health legislation in England and Australia, the doctor dealt with the following aspects of the subject: Hygiene, Sanitation, Housing, Water Supplies, Food supplies and Standards, Hospital and Medical Services, Drug Standards and Drug Legislation.

At the conclusion of the address, the doctor replied to a number of questions.

The President and the Registrar, in thanking Dr. Henzell for his lecture, expressed appreciation of the cordial relations existing between the Council and the Health Department, and the Commissioner's personal interest and co-operation in matters affecting pharmacy.

AMENDMENTS TO PHARMACY AND POISONS ACT.

These have now been passed by Parliament and were assented to on November 10.

The principal provisions are:

1. A pharmaceutical chemist who is engaged to take charge of a pharmacy for a period exceeding three days, and the person so engaging him shall notify the registrar immediately of the engagement.

2. The Pharmaceutical Council is given power to recognise qualifications of pharmaceutical chemists not recognised by the regulations providing that the applicant has passed an examination which in the opinion of the Council is substantially equivalent to that prescribed in this State and has been conducted in the English language.

3. The Council may in special circumstances prescribe or approve a special course of training and examinations.

PHARMACEUTICAL COUNCIL OF W.A.

Notes from meeting held on November 4.

All members were present, with the exception of Mr. G. H. Dalimore, who was absent in the Eastern States on Guild business.

At the opening of the meeting Mr. R. I. Cohen expressed the sympathy of members to the President on the death of his father, which had occurred a few days earlier.

Correspondence.—From W.A. Historical Society: Letter appealing to the Council to preserve such of its records as trace the growth of the organisation from its foundation and inviting the Council to nominate one of its members to become a member of the Society. It was decided to join the Society and the Registrar was nominated as representative. (Note: The Registrar will be glad to hear from any pharmacist having old documents, apparatus, etc., likely to be of value in this direction.)

From F. C. Kent, advising that the proposed discussions on pharmaceutical education would probably be held in Adelaide from February 9 to 12, 1953. These dates were agreed to and the President and the Registrar were appointed to represent the Council at the meetings.

From Police Department, advising the death of E. G. H. Ganzer, at Wagin, on 7/8/52, caused by phenobarbital poisoning, self-administered.

From Miss K. Laurance, requesting suspension of indentures for medical reasons. The application was endorsed by the employer and medical certificate was attached. The request was granted.

Transfer of Indentures.—The indenture of Miss B. Cleave was transferred from Mr. H. Maseri to Mr. L. H. Hogben.

Registration.—Certificate of Competency having been received from Great Britain the application for registration of Miss Bessie Pelling was approved.

Silver Wedding.—The Registrar advised the meeting that Mr. and Mrs. A. A. Baxter would celebrate their Silver Wedding on November 5 and expressed the Council's good wishes to them.

The meeting closed at 10 p.m.

SENSATIONAL NEW PLASTIC PACK



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Agents in all other States.

142

TASMANIA

PHARMACY BOARD

*Monthly
Meeting*

A special meeting of the Pharmacy Board of Tasmania was held at 65 Murray street, Hobart, on October 20, at 8 p.m.

Present.—Mr. H. H. Pearce (President), Messrs. D. R. Crisp, T. A. Stephens, E. H. Shield and the Registrar.

Pharmacy Course and Syllabus.—The whole of the proposed course and syllabus, together with recommendations from the Pharmaceutical Society, was dealt with in detail and approved, subject to the following adjustments:

- (1) That the first year student must obtain a higher pass in two of the subjects.
- (2) It was further decided that an apprentice entering with a higher pass in two of the three Matriculation Chemistry, Biology and Physics, was to do the second-year course during the first year of apprenticeship, but can only sit for the examination after having completed the second academic year.
- (3) There shall be included one Practical Examination in Dispensing at the end of the fourth year.
- (4) At the end of the third paragraph, under "Examination in Pharmacy II," add the words "that in each subject."
- (5) That a reference to the year-end examination or accreditation should be shown against each year on the summary setting out the Pharmacy Course.

It was further decided that a list of recommended books should be supplied by the lecturer at the commencement of each year and that the student be allowed to sit for the fourth year examination on the completion of the academic course.

Two other points raised by the Pharmaceutical Society regarding the adoption of an annual examination with supplement for failures and the limitation of the number of years in which the course should be completed, were not decided upon. It was resolved that these two points should be considered at a later date.

The meeting closed at 10.35 p.m.

NOVEMBER MEETING OF THE PHARMACY BOARD.

The Pharmacy Board of Tasmania met at 65 Murray street, Hobart, on November 10.

Present.—Messrs. H. H. Pearce (Chairman), D. R. Crisp, T. A. Stephens, R. H. Shield, A. P. Brammall and Registrar.

Examinations.—The Registrar reported that all arrangements for the examinations had been completed.

Code of Marking.—Replies received from Mr. Kent and Mr. Callister set out full details of the method of marking by Examiners in Victoria, and it was decided that this correspondence should be referred to the next meeting of Examiners.

Pharmaceutical Register:

Nicholous Sulyi.—A full report by Dr. Burgin and Dr. Polya regarding Mr. Sulyi's medical qualifications and the exemptions which were considered possible for his admission to the Pharmaceutical Examinations were received.

After stressing the references in this report that the recommendations are not meant to establish a precedent, but that other European doctors who wish to qualify as Pharmacists in Tasmania must have their individual claims investigated separately in every case, the meeting decided that the recommendations of Dr. Polya and Dr. Burgin regarding Mr. Sulyi be adopted and that cognition be taken of the previous service of Dr. Sulyi subject to the following requirements:

(1) That he shall attend lectures as set down by Dr. Burgin; (2) He must find continuous employment in an open pharmacy, hospital dispensary, or Friendly Society dispensary for the whole of the year 1953. A certificate from the employer as to having served this time will be required at the end of the year; (3) He shall pass the Final Examinations of this Board in: (a) Physiology and Toxicology, (b) Practical Dispensing.

Permission is granted to present himself at the Final Examination in November, 1953, in the above subjects.

Notice of Death—Mr. Harry Sidwell was received, and it was resolved that his name be removed from the register.

Registration Fees.—A letter was received from the Chief Secretary, advising that the Governor in Council had approved the increase in the fees as set out in the second schedule of the Pharmacy Act 1908 to be amended to read: "For the issue of any Annual Certificate of Registration to any Pharmaceutical Chemist, £5/5/-."

Indentures.—James William Saltmarsh to John Alan Walker, Scottsdale: Completed indentures were received and registration approved.

The indentures of Margaret Annice Harris to Ian Bruce McLeod were approved for registration.

Lyndsay James McLeod, having completed his term of apprenticeship, his indentures were approved for discharge.

Finance.—A Financial Statement was presented showing receipts of £48/5/-, Expenditure £49/3/5, a Debit Balance of £22/15/9, and Liabilities of £69/15/5, which were passed for payment.

Forms for the Registration Renewal Fee were considered and approved for printing.

Annual Election.—Details of the Annual Election of members to the Board were discussed, the closing date for nominations being January 8, 1953. The retiring members are Messrs. A. P. Brammall, D. R. Crisp and L. W. Palfreyman. Mr. Brammall stated that he would not be accepting renomination.

Mr. T. A. Stephens was appointed Returning Officer.

Poisons Act.—A letter from the Director of Public Health, advised that the Public Health Committee of the National Health and Medical Research Council was meeting this month and would consider the possibility of effecting uniformity in the form and substance of drug schedules under the States' Poisons Acts, and requested comments thereon.

The meeting decided to advise that this Board would be pleased to consider any recommendation raised from the meeting of the Public Health Committee as the Board is in the process of redrafting the Poisons Act.

The meeting closed at 10.15 p.m.

PHARMACEUTICAL SOCIETY

Executive Meeting

The Executive of the Pharmaceutical Society of Tasmania met at 65 Murray street, Hobart, on October 21, at 8 p.m.

Present.—Messrs. A. G. Gould (President), K. H. Jenkins, E. H. Shield and the Secretary.

Syllabus.—The Secretary advised that the recommendations to the Pharmacy Board had been considered and adopted with the exception of two items referring to the annual examination and the limitation of the number of years in which the course must be completed, which the Board decided should be considered at a later date.

Code of Marking.—A letter was received from the Pharmacy Board requesting that consideration be given to the setting up of a "Code of Marking" for the Examiners.

The Secretary advised that he had written to Victoria for information on this matter. The meeting decided to await this report before giving any consideration to the subject.

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Stock Lournay for success in sales! These high quality beauty preparations, which sell at reasonable prices, are virtually confined to chemists . . . and bring you 56% profit! Be sure, too, that underbuying does not cut your sales and profits, for National Survey shows that while 30% of customers may accept a substitute, 43% buy elsewhere!

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*When anyone
buys a tube...*



*When anyone
buys a tin...*



*the profit goes to the
pharmacy
and only to the pharmacy*

PRODUCTS OF BRISTOL-MYERS LABORATORIES

TASMANIA (Continued)

Parke Davis Award.—A letter was received from Mr. Theo. J. White, of Parke Davis & Co. Pty. Ltd., advising that his company was willing to pay all expenses to Sydney for a matter of two or three days for the two best students (one male, one female) at the year-end examinations of the Pharmacy Board in each State. The object being to give them a tour through Parke Davis laboratories together with the showing of films with various aspects on Pharmacy and Medicine, a tour of Sydney, and possibly a free afternoon.

Members considered this was a most generous offer and would be of considerable value to students. After discussion, it was decided that the students who would gain most benefit from such a tour would be those completing their Intermediate Examination. It was, therefore, decided to suggest to Mr. White that the prize should be given to the two best students at the Intermediate year-end Examinations.

Financial.—Accounts totalling £23/4/- were passed for payment.

Social Evening.—After discussing the possibility of holding a Social Function, it was decided not to proceed with a gathering this year.

The meeting closed at 9.15 p.m.

NOVEMBER MEETING OF THE COUNCIL

The Council of the Pharmaceutical Society of Tasmania met at 65 Murray street, Hobart, on November 12, at 6.15 p.m.

Present.—Mr. A. G. Gould (President); Miss M. E. Andrews, Messrs. K. H. Jenkins, E. H. Shield and the Secretary.

Discussions on Education.—The Secretary reported that a letter had been forwarded to the Superintendent of Technical Education, requesting that assistance might be given to the sending of one or two delegates to this conference.

The matter had been referred back to the Society to ascertain what amount the Society was prepared to contribute towards this expense.

Members expressed the feeling that it was essential for Tasmania to be represented at this important conference.

After considering the Society's likely financial position for the ensuing year, it was decided that a letter be sent to members, requesting a voluntary contribution towards the expense of sending our Lecturer in Pharmacy to this important conference, and that the Superintendent of Technical Education be advised that we are prepared to pay half of one delegate's expenses.

The meeting closed at 7 p.m.

NEW SOUTH WALES

PERSONAL and GENERAL

State News

Miss Annette Fleming, of Rose Bay, has recently been engaged in locum work in Canberra.

We extend our sympathy to Mr. F. A. Benson, of Bondi, on the death of his wife on November 12.

Mr. S. S. Thompson has bought the business of the late Mr. Moore, at Croydon Park.

New Businesses:

Rocklin Pharmacy, Carlingford.

Mr. B. J. Fienberg, Gladesville.

Mr. Peter Lynch, Marrickville.

Alcoholics Anonymous has acquired an office at 173 Pitt street (first floor). The telephone number is BL 2404.

After a period of several months of relieving, Miss Judy Trim has accepted a position with Mr. J. J. Rose, of Randwick.

Mr. A. E. Conolly, Secretary of the F.P.S. Guild and of the Pharmaceutical Society of New South Wales, has recently returned from a most enjoyable vacation and feels invigorated for the daily round, which we all know is not a light one.

Mr. John King, of Higher Appointments, Commonwealth Employment Service, Sydney, the Employment Officer responsible for the placement of pharmaceutical personnel, is enjoying a well-earned respite in the hills of Tasmania. Mr. D. J. McDonald will take over Mr. King's position until his return on December 15.

Mr. P. R. D. Hollis, of Goulburn, was a candidate for pre-selection for the Liberal Party nomination for the Federal seat of Bradfield, rendered vacant by the death of the Rt. Hon. William Morris Hughes, P.C., M.P. A record number of applications, 33, was considered by the selection committee.

Engagement.—Congratulations are extended to Bruce Thurn, Goulburn, on his recent engagement to Estelle Dolahenty, of Drummoyne.

Congratulations to **Ken Bickle** and **Margaret Stork**, who announced their engagement during the month.

N.U.P.S.A. Congress.—The following students are planning to attend the N.U.P.S.A. Annual Congress at Point Lonsdale, Victoria, in January next: Misses Judy Bowering, Y. Davies, R. Figgis, Joan Lurcock, Denise Marsden, Joan Renwick, Anette Simmons, Lillian Stipl and Messrs. J. C. Fox and David Lowrey. Miss Margaret Miller, a member of the National Council, Gerry Benjamin, Vice-president, and Bruce Williams, Past-president, also are planning to attend. S.U.P.A.'s delegates are Annette Simmons and David Lowrey.

WEDDINGS.

A wedding of considerable pharmaceutical interest took place on September 13, at Chatswood South Methodist Church. It was the wedding of two pharmacists, **David Campbell** and **Shirley Barringham**. David is the elder son of Mr. A. T. Campbell, pharmacist, and the late Mrs. Campbell, of Five Dock, and Shirley is the daughter of Mr. and Mrs. E. Barringham, of Lane Cove. The best man was Mr. Alan Middleton, pharmacist, of Abbotsford. After the wedding a reception was held at "Mandalay." The guests included about 20 friends in pharmacy, amongst whom there were Misses Jean Gore, Lynne Boggio, Eunice Macwhinnie, Pat Perrott and Messrs. J. Collier, H. W. Manning and J. Matthews. Telegrams were received from the Sydney University Pharmaceutical Association, of which David is President, and from the National Union of Pharmaceutical Students of Australia. On November 17, Mr. and Mrs. Campbell purchased Wilkinson's Pharmacy at Bronte.

The wedding of a member of a well-known pharmaceutical family took place prior to Nuptial Mass at St. Michael's Church, Lane Cove, on November 15, when **Miss Freda Clouston**, daughter of the late Mr. A. A. Clouston and of Mrs. Clouston, of St. Leonards, married Mr. Peter McClean, of Bankstown. The bride's sister, Flora (Mrs. Barclay Hodge), also a pharmacist, was matron of honour. Mr. Keith Wise, of Molong, was best man. Among the 76 guests at the reception, held at Windsor Gardens, was Mrs. Rothilde Perriam, a committee member of the Women Pharmacists' Association.

Best wishes are extended to both couples.

DEATH OF MR. B. S. BERRY.

Mr. Bernard Sydenham Berry, of Roseville, died on November 19, aged 71.

He was a former president of the Pharmacy Board, and had a chemist's shop in King street, Newtown, for more than 30 years.

He was a member of the Pharmacy Board from 1932 to 1940.

Mr. Berry leaves a widow, and two sons by a previous marriage, to whom we extend condolence.

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NEW SOUTH WALES (Continued)

NEW REGISTRATIONS.

At the October and November meetings of the Pharmacy Board of N.S.W. a total of 103 new registrations as pharmacists were effected. There are now approximately 2600 registered pharmacists in the State. The employment position is static, and, whilst some pharmacists report difficulty in obtaining jobs, the Commonwealth Employment Service has vacancies listed in country towns as far apart at Inverell, Bathurst, Katoomba and Milton, as well as in the metropolitan area.

COMING EVENTS.

December 16 (Tuesday): S.U.P.A. Christmas Dance, Union Refectory, 8 p.m.

December 28 (Sunday): Special Quiz Kids' Programme. Radio Station 2GB and Macquarie Network, 7.30 p.m.

January 16 (Friday): Science Group Meeting, Science House, 8 p.m.

December 11 (Thursday): Catholic Chemists' Guild Annual Meeting, History House, 8 p.m.

PROFESSOR THORP TO VISIT CANADA.

Professor R. H. Thorp, Professor of Pharmacology and Director of Pharmaceutical Studies in the University of Sydney, has been granted leave to attend the 19th International Physiological Conference and the International Pharmacological Congress in Montreal, in September, 1953. Whilst overseas Professor Thorp hopes to be able to visit pharmaceutical training centres in America and Canada.

It has been suggested that, in view of Professor Thorp's undoubted concern for the introduction of the best course possible for pharmacy in New South Wales, the Pharmaceutical Society will request the professor to extend his trip.

CHRISTMAS DANCE.

This annual function, organised by the Sydney University Pharmaceutical Association, will be held in the Union Refectory, University of Sydney, on Tuesday December 16, at 8 p.m.

Admission is only 7/6 each. Music will be provided by popular Harry Berry and his dance orchestra. A buffet supper and liquid refreshments will also be provided.

This function has proved one of the most popular social "do's" over the last few years, and the committee extend a special invitation to first year apprentices, as well as to registered pharmacists, to join in capturing the festive spirit.

Ring Shirley Campbell, FW 1791 (day), Annette Simmons, FF 3043 (night) or Warwick Wilkinson UA 1126 (night), for enquiries.

Remember, only 7/6 each!

SCIENCE GROUP.

The Science Group of the Pharmaceutical Society of N.S.W. met on November 19, and saw a film on research prepared by Parke, Davis and Co. Ltd., and presented by Dr. McCarthy, of that company.

After the screening a general discussion ensued on the physiological side-effects of the administration of antibiotics.

It was Dr. McCarthy's opinion that the administration of Vitamin B Complex was a wise precaution against the possibility of vitamin deficiency onset due to the inhibitory action of the antibiotics on the intestinal bacteria responsible for the production of vitamin B. Dependent on the nutritional state of the patient, a vitamin deficiency was likely to occur after about the fifth day of antibiotic therapy. Referring to the control exercised in the United States over the distribution of drugs, Dr. McCarthy gave some interesting illus-

trations of the work of the Food and Drug Administration.

There will be no meeting of the Science Group during December, and the next meeting will be at "Science House," on Friday, January 16, 1953.

CHEMIST CHARGED.

Thomas Joseph McMullen, 46, of St. Mark's road, Randwick, pharmaceutical chemist, appeared in the Newtown Court on October 17 on a charge of having driven a car while under the influence of a drug.

Police also charged him with having failed to stop after an accident, having driven in a dangerous manner, and on two counts of having driven negligently.

They said McMullen was the driver of a car which crashed into a parked vehicle in Angel street, Newtown, on July 12, and that the car did not stop after the accident.

Constable Ballard said he saw McMullen sitting in a car in Angel street on July 12. He said McMullen fell over twice when he got out of the car. Constable Budd said McMullen was unsteady on his feet, but there was no smell of liquor on his breath.

Mr. Scroope, S.M., remanded McMullen to December 5 on £20 bail.

DOCTORS DE-REGISTERED.

Press reports disclose that the Medical Disciplinary Tribunal, on November 14, order the removal of the names of Dr. Graeme Alvin Robson (South Australia) and Dr. Murray Frederick Little (Perth, W.A.) from the Medical Register.

Dr. Robson, who attended the hearing, was charged with having been convicted of having stolen drugs worth 10/-, the property of two South Australian doctors.

Dr. Little was charged with having been convicted of prescribing a drug merely for the purpose of addiction.

Dr. Robson told the court the conviction was a wrong one. At the time of the court hearing he was suffering from pneumonia and had missed points for which he had since found proof. There were nine bottles of Morphine found by analyses to contain water instead of the drug.

The Chairman of the Board, Judge Stacy, said Dr. Robson could apply for reconsideration of the finding after making application to the South Australian Medical Board for re-registration.

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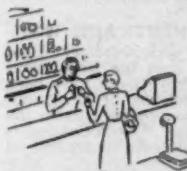
On the evening of November 21, chemists, their families, assistants and apprentices drawn from the metropolitan area of Sydney were the guests of Johnson & Johnson Pty. Ltd. in the Macquarie Auditorium. They constituted a special audience for the "Quiz Kids" programme to be broadcast on Sunday, December 28, over the Macquarie network, followed by the screening of "Back to Confidence," a full-colour film which shows in good detail the extent of operations and efficiency of management in Johnson & Johnson's modern manufacturing plant at Botany, N.S.W. This pictorial propaganda of local factories is a new feature of sales promotion, and proved most successful in conveying to the audience the splendid layout and vast amount of machinery that combine to effect the excellence of Johnson's products.

After the screening the guests of Johnson & Johnson Pty. Ltd. were entertained to a buffet supper. The capacity audience (a special second screening a week later for another capacity audience was necessary) included Mr. W. R. Cutler, Mr. K. Cartwright and Mr. L. W. Smith, Presidents respectively of P.A.A.N.Z., the Pharmaceutical Society and the F.P.S. Guild (N.S.W. Branch).

N.S.W. CHEMISTS' SUB-BRANCH R.S.S.A.L.L.A.

A short talk on the history and functions of the Wellcome Foundation, followed by the showing of two excellent films produced by Burroughs Wellcome,

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NEW SOUTH WALES (Continued)

made the November meeting a very interesting and pleasant evening.

Member Abbie Dawe is the proud father of another son, so we offer our congratulations and best wishes. Abbie has managed to break the monotonous line of girls that have been arriving for the members of the Sub-branch lately.

Northcott Neurological Centre.

A message concerning the facilities available and the method of obtaining them at this centre may be of interest here.

The Centre was established for the investigation and diagnosis of nervous disorders, both psychiatric and physical in origin, and the recommendations for the appropriate treatment.

The centre is available to all ex-servicemen and their dependants, and is not limited to returned men only.

Intending patients must first be recommended for neurological investigation by any medico, in the form of a written certificate. The patient contacts the centre for an appointment, whereupon the centre medical officers investigate his case, diagnose and offer their opinion on the treatment required.

The charge for this is one guinea. The information is forwarded to the patient's own medico, who then carries out the appropriate treatment.

December Meeting.

The December meeting will be in the form of a Christmas Party, to which Official Pharmacy guests have been invited. Help spread and consume some Christmas Cheer by being present at this meeting on the first Thursday in December.

—JOHN K. GILL, Publicity Officer.

POLICE OFFENCES (AMENDMENT) ACT, 1950.

We have been advised by the Under-Secretary, Chief Secretary's Department, Sydney, that the Regulations under the Police Offences (Amendment) Act have been amended to provide for the supplying of Dangerous Drugs, in certain circumstances, to sources outside the Commonwealth and its territories. The following is the text of the Amending Regulations, published in the "Government Gazette":—

Amendment of Regulations.

The Regulations are amended by omitting Regulation 3 and by inserting in lieu thereof the following Regulation:—

3. (1) No person shall supply or procure, or offer to supply or procure, any drug unless—
 - (a) he is the holder of a license in the form or to the effect of the form set out in Schedule 3 or Schedule 4 to the Regulations; and
 - (b) he complies with the terms and conditions of the license; and
 - (c) the person to whom the drug is supplied or on whose behalf the drug is procured is the holder of a license or authority under the Regulations or is otherwise authorised by the Regulations to have the drug in his possession.
- (2) This Regulation shall not apply—
 - (a) to a person supplying or procuring, or offering to supply or procure, a drug if such person is acting within the scope of an authority conferred upon him by the Regulations; or
 - (b) to the supplying of or offering to supply a drug—
 - (i) to any Authority of the Commonwealth or of any Territory of the Commonwealth, duly constituted in that behalf; or
 - (ii) to the holder of a license or authority to have such drug in his possession under the law of any other State of the Commonwealth, or under the law of the Commonwealth or of any Territory of the Commonwealth, where the person supplying or offering to supply such drug is the holder of a license in or to the

effect of the form set out in Schedule 3 or Schedule 4 to the Regulations; or

(c) to the supplying of or offering to supply a drug by way of export to any person or body located in any country or territory outside the Commonwealth and its Territories where the person supplying or offering to supply such drug is the holder of a license in or to the effect of the form set out in Schedule 3 or Schedule 4 to the Regulations.

CHEMISTS AND DRUGGISTS' ANNUAL GOLF TOURNAMENT.

A sunny day and ideal conditions for good golf helped to make the annual function, held this year at Long Reef Golf Club, on November 4, a complete success. One hundred and forty players hit off between 8 a.m. and mid-day.

Amongst the country players were Mr. J. Olson, of Coonabarabran, and Mr. A. Taylor, of Wollongong. Each year new faces appear in the gathering, and the ultimate success of the day is assured by the increasing number of pharmacists who find this function an opportunity to mix with their colleagues and members of the drug trade. Fifty-seven pharmacists played this year. Unfortunately two of the well-known and regular golfers were unable to play — Wal Pinerua was taken ill, and Warwick Rourke hurt his shoulder.

Many executives of the manufacturing and wholesale drug firms attended the luncheon and helped to further the social activity of the day.

Mr. Lionel A. Poole (Chairman of Directors and General Manager of Elliotts and Australian Drug Pty. Ltd.) welcomed the players and visitors and presented the following trophies:—

"Elliott Cup" Trophies.—18 hole, Four-ball Stableford—best ball:—

W. Cullen and R. Rowley (48 points).

"Allen & Hanbury" Trophies.—Runners-up to Elliott Cup:—

J. Young and J. Murphy (45 points).

"Faulding Trophy".—Best Net Stroke:—

W. Cullen (19.61).

"Bristol Myers" Trophy.—Best Gross Stroke:—

L. Skinner (5) 72.

"Kodak" Trophy.—Best Stableford:—

A. Bailey.

"Paul Duval" Trophy.—First Nine Holes, Best Gross Stroke:—

C. Campbell.

"Needle's" Trophy.—Second Nine Holes, Best Gross Stroke:—

H. Eizenberg.

"Parke, Davis" Trophy.—Retailer, Best Stableford:—

G. Mallam.

"Edinburgh" Laboratories Trophy.—Retailer, Best Net Stroke:—

R. Warn.

"Burroughs Wellcome" Trophy.—Retailer: First Nine Holes, Best Stableford:—

J. Plunkett.

"Nyal" Trophy.—Retailer, Second Nine Holes, Best Stableford:—

H. Nakkan.

"Double D" Trophy.—Retailer, Best Net Stroke (Players with Handicap of 20 or More):—

J. Young.

"Wholesale Drug" Trophy.—Retailer, Best Gross Stroke:—

F. Brown.

"S. Hoffnung" Trophy.—Retailer, Best Gross Stroke (Runner-up):—

L. Bissaker.

"Potter & Birk's" Trophy.—Retailer, Best Net Stroke (Players with Handicap of 15 and Under):—

R. Rowley.

"Johnson and Johnson" Trophy.—Retailer, Long Drive:—

H. Nakkan.

"T. and H. Smith" Trophy.—Wholesaler, Long Drive:—

L. Skinner.

NEW SOUTH WALES (Continued)



H. Nakkan Drives Off.



(Left to Right): T. Bollingsworth, K. Weir, E. Emerson, J. Olson (Coonabarabran).



(Left to Right): F. P. Gray, J. Murphy, Jim Donovan, John Joung.



Theo White Lines the Ball, Whilst E. Stewart Waits.



(Left to Right): R. Frew, W. Cullen, A. Bailey, R. Rowley.



(Left to Right): F. Davidson, J. Rawe, J. Plunkett, L. "Mick" Bissaker.

NEW SOUTH WALES (Continued)

AMENDING POISONS BILL.

A Bill which repeals the Poisons Act of 1902 and replaces it with an entirely new measure was introduced in the Legislative Assembly on November 12.

In moving for leave to introduce the Bill, the Minister for Health, Mr. O'Sullivan, said:—

I move: That leave be given to bring in a Bill to regulate and control the sale and use of poisons, poisonous substances and preparations, and certain drugs; to establish a Poisons Advisory Committee, and to define its powers, authorities, duties and functions; to amend the Pharmacy (Amendment) Act 1940 and certain other Acts; to repeal the Poisons Act 1902; and for purposes connected therewith.

It has been realised for some years that the existing Poisons Act, which was passed in 1902, is now completely out of date, and does not give sufficient powers to enable my department to deal with important problems associated with the sale and use of poisons. It will be recognised that the main object of legislation of this kind is to prevent as far as possible the careless and indiscriminate use of poisons. Any legislation of the kind, however, should in its terms be sufficiently elastic to ensure that there is no undue interference with the legitimate use of poisons for medicinal, industrial, agricultural, horticultural and pastoral purposes. My department has had the matter under review now for some years, and in fact my departmental officers have conferred with various Government departments and outside organisations that are interested in the matter. In this Bill an attempt has been made to provide the necessary powers for proper regulation of the sale and use of poison. Hon. members will appreciate that it would have been futile to attempt to amend the existing Act, and the Government has decided to repeal the 1902 Act and replace it by a comprehensive new measure.

Poisons have a very wide use, not only in medical, dental, pharmaceutical and veterinary activities, but also in agricultural, horticultural and pastoral as well as industrial spheres. Consequently careful consideration must be given to the classification of the various poisons and to the regulations that will have to be made to govern their sale and distribution. Such matters will be the function of the Poisons Advisory Committee which it is suggested shall be set up under the Bill. That Committee will consist of 12 members representative of Government departments and other interested bodies, and will be under the chairmanship of the Director-General of Public Health. It can be taken for granted that this Committee will in its deliberations permit various interests to ventilate their views when it comes to the classification of the poisons and the restrictions that should be applied to their sale and use by regulation. To my mind the establishment of this Committee is the most important provision in the Bill, as it will be required to deal with many technical and scientific problems that will inevitably be associated with the preparation of the poisons list.

It will be noted from the Bill that the poisons list will consist of three schedules, namely: Schedule One, poisons; Schedule Two, poisonous substances and preparations, such as agricultural poisons; and Schedule Three, restricted drugs, namely drugs that are not covered by the schedule under the Police Offences (Dangerous Drugs) Act, but the sale of which should be controlled by regulation.

Schedule One, poisons which will be the most dangerous poisons will be permitted to be sold only by a medical practitioner, pharmacist or a licensed person. In this latter respect a person may be so licensed whose premises are situated at least four miles from the nearest chemist's shop. There will be certain exemp-

tions from this prohibition. These are set out in Division 2 of Part III, and will be explained more fully on the second reading of the Bill. Schedule Two poisons, which will include those poisonous substances and preparations that are used in large quantities for agricultural, horticultural, pastoral and industrial purposes, will not be subject to the same restrictions as those which will apply to Schedule One poisons. The main provisions in regard to poisonous substances will relate to labelling, packing and storing. Schedule Three will contain what are called "Restricted Drugs." At present there is no provision in the law to restrict the sale of certain drugs which, while not coming within the meaning of the Dangerous Drugs Act, will require in the public interest to be restricted in their sale. Provision will be made in the Act for such drugs to be sold only by medical practitioners, pharmacists and veterinary surgeons. The regulations will no doubt provide that such restricted drugs may be sold only on the prescription of a medical practitioner or veterinary surgeon.

Part VI of the Bill is devoted solely to cyanide of potassium, which is an extremely dangerous poison and handled in large quantities for industrial and mining purposes. The sale of this poison will be restricted to certain approved classes of persons and only to those who are themselves authorised to sell cyanide of potassium except where required for mining or trade purposes, but not for resale. Part VII of the Bill contains general provisions which prohibit the sale of drugs or medicines, any drink, food or condiment in a container similar to the container used for poisonous substances; the hawking, peddling or free distribution of any poison, and so on; and the selling of poisons by automatic machines. It also contains provisions relating to evidence in legal proceedings, certificates of analysis, sales by employees, powers of inspection and penalties. It is pointed out that the actual administration of the new Act will be in the hands of the Pharmacy Board, which administers the Poisons Act of 1902. The Bill which I have briefly outlined will, I am sure, give all the powers that are necessary to enable my department and the Pharmacy Board to exercise in the public interest adequate control and supervision of the sale and use of poisons, poisonous substances and restricted drugs in this State.

It is true to say that in this connection New South Wales is probably well behind other States such as Victoria and Queensland, which States for many years have had the legislation that they require to deal with such matters, and the passage of this Bill in New South Wales is long overdue. It is possible that hon. members will soon discover that there are many interests that are involved or concerned with legislation of this kind. No doubt hon. members will be approached in regard to certain provisions in the Bill, and I assure them that I shall be quite happy to listen to any suggestions which may be brought forward during the passage of the Bill through this House. I commend the measure to hon. members as one which is essential to enable my department to exercise a better control in this particular field.

Mr. Treatt (Woolahra) [10.3]: I do not propose to say much at this stage of the debate, but hon. members will be anxious to examine the schedule to see in which category their particular poison is classified. Some months ago I asked the Minister a question regarding this matter, and suggested that an up-to-date measure dealing with poisons was long overdue. The Minister informed me that the matter was under review, and it appears that an attempt has been made to provide a comprehensive and satisfactory measure. Today poisons are handled in industrial and agricultural pursuits in a manner that frequently causes accidents, and it is claimed that in many instances if adequate precautions had been taken loss of life would have been averted. Some persons tend to solve their domestic difficulties by the introduction of a novel poison. The Opposition welcomes the Bill, and will accept the invitation of



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NEW SOUTH WALES (Continued)

the Minister to suggest amendments that might improve it.

Mr. Stephens (Byron) [10.4]: I look forward to making a close examination of this measure, and agree with the Minister that such legislation has been required for some time. It frequently happens that measures of this nature become unduly restrictive, and I hope that any fears which I have in that regard will prove to be groundless. The Minister intimated in his introductory speech that poisons will be classified in four schedules. He mentioned that poisons in No. 1 schedule would be sold only by medical practitioners, pharmacists and, I think, veterinary practitioners.

Schedule No. 2 will probably contain the poisons that are important in agricultural pursuits and mining. A great disservice will be done if the sale of poisons used in agricultural, pastoral and other primary activities is restricted on the lines that some persons in the community have sought. Therefore, I hope that the Bill will provide for satisfactory packaging, labelling, storage and other matters, but will not prevent trade houses in rural areas from selling them to primary producers. Any proposal to restrict sales in the country would cause great hardship in the pursuit of industries that are basic to our economy. From time to time new poisons are discovered, and it is necessary for this House to overhaul poisons legislation in the interests of protecting the public, which is its duty at all times. The wilful use of poisons by suicides and the like can be largely overcome by control of the quantities permitted to be sold to any one person. I look forward with interest to a close study of the Bill, and I hope that, as it is so comprehensive, hon. members will have the week-end in which to give it their attention before the second-reading stage is reached.

Motion agreed to.

Bill presented and read a first time.

PHARMACY BOARD

Monthly Meeting

The Pharmacy Board of New South Wales met at 52 Bridge street, Sydney, on October 14, at 8 p.m.

Present. — Messrs. J. L. Townley (President), S. Wright, G. Simpson, O. C. V. Leggo, A. West, R. Hudspeth, C. Gostelow and G. Williams.

Name Restored to Register. — Edmond Samuels.

Registration (By Reciprocal Agreement). — Ian Charles Wood.

Certificates of Identity Issued. — Miss Stella M. Feakes (to Great Britain), Mr. John Joseph Callanan (to New Zealand), Miss Judith A. Stewart (to Great Britain), Mr. Stanley A. Curran (to Queensland), Miss Betty L. Withers (to Queensland), and Mr. Stuart C. Vickers (to Victoria).

Section 11(e), Foreign Applicants. — A recommendation by the Sub-committee on Foreign Chemists that the application of W. L. Jansohn, Darmstadt, Germany, be refused, was adopted by the Board.

Poisons Act. — The following deaths from poisons were reported since last meeting, viz: Arsenic 2, "Sedormid" 2, Nicotine 1, Strychnine 1, Phenobarbital 1, "Bromural" 1.

Leaving Certificate Accepted in Lieu of Preliminary Examination. — 1.

Registration of Indentures. — Registrations comprised one new indenture, two transfers and one cancellation. Meeting closed 9.15 p.m.

NOVEMBER MEETING OF THE PHARMACY BOARD.

Meeting held November 11.

Present. — All members of the Board, except Mr. G. Williams, from whom an apology was received.

Applications for Registration were approved, as follows:—

Having passed Qualifying Examination: George Michael Eckert and Reginald Thomas Roberts.

By Reciprocal Agreement: Lyall Edwin Douglas Campbell (from New Zealand), Mrs. Erma Marian Tat-tersall (from Victoria), and Mrs. Elsie Foster (from Great Britain).

By Restoration: Langley Robin Talbot and Raymond Lawrence Ward.

Foreign Applications for Consideration — Section 11(e). — Keshishian, W. H., B.Pharm., Univ. of Fouad 1st, Cairo. Application referred to the Sub-committee on Foreign Chemists for investigation and report to next meeting.

Poisons Act. — The following deaths from poisons had been received since last meeting, viz: Mercure Chloride 1, Pyranisamine 1, Arsenic 4, Phenobarb. 2, Thallium 1, Sedormid 1, Nembutal 1, Strychnine 1, Camphor 1, Carbolic 1, Nicotine 1.

Correspondence. — P.A.A.N.Z., invitation to send delegates to Adelaide in February, 1953, to discuss Pharmaceutical Education. Matter deferred for consideration at next meeting. The dates of the conference were in conflict with the holding of the Qualifying Examination.

Application from a Company for Information Relating to the Opening of a New Pharmacy. — It was decided to refer the enquirer to the provisions of Section 18A of the Act.

Apprenticeship Training—Regulation 48A. Exercises. — The Board formed a Sub-committee, comprising Messrs. Wright, Simpson, Smith and Gostelow, to investigate methods of improving the training given to apprentices in the first year of apprenticeship.

Non-Submission of Training Report. — It was decided to refer to the Industrial Registrar the case of a chemist who was fined for non-submission of the Training Report of his apprentice in June, 1952.

PHARMACEUTICAL SOCIETY

Council Meeting

The Council of the Pharmaceutical Society of N.S.W. met at "Science House," Sydney, on November 4, there being present: Messrs. K. A. Cartwright, J. L. Townley, A. F. Winterton, A. W. West, H. W. Read, S. E. Wright, W. R. Cutler, J. Shineberg, K. Powell, E. G. Hall and B. G. Fegent.

Return of Mr. Cutler from Abroad. — Mr. Cartwright welcomed Mr. Cutler back from his trip abroad, mentioning that no doubt Mr. Cutler would have much to tell the Society Council. Mr. Cartwright suggested that there should be a combined meeting with the Guild to hear a report from Mr. Cutler and possibly the screening of films taken abroad.

Mr. Cutler thanked Mr. Cartwright for his welcome, and said that a considerable amount of printed information was coming by sea and it had not yet arrived. When this material arrived he would be in a position to convey all information to the Society and Guild representatives.

Mr. Cutler said that Allen & Hanburys Ltd. had presented him with a copy of "Plough Court," the story of a notable pharmacy 1715 to 1927 compiled by Ernest C. Cripps. Mr. Cutler presented the book to the Council for the Society's library.

Mr. Cutler said that Parke Davis & Co. had presented him with a fine series of reproductions entitled "A History of Pharmacy in Pictures." These reproductions would be suitable for framing.

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NEW SOUTH WALES (Continued)

New Members.—The following were admitted to full membership of the Society:—T. N. Brunsell, R. H. Davies, Jill R. Fraser, W. V. Hill, Jean Gore, C. M. T. Moore, J. J. Murray, J. M. Neylan, F. J. Pearce, D. B. Wellington.

Advancements to Full Membership.—Pamela M. Alcorn, T. A. McCullough, Patricia K. O'Connell, A. J. Pasfield, A. L. Stephenson.

Associate Members.—Catherine G. Eakin and Mary Verga-Smith.

P.A.A.N.Z. Conference, Sydney, August, 1953.—Reports were received of a meeting of the Executive Committee and of the Social Committee. These two Committees are planning for the Conference in August next.

First Year Apprentice Lectures 1952:

Reports of Examiners.—Mr. Hall presented the papers which he had marked, stating that some of the marks gained were very gratifying. Mr. Hall said the candidates consisted of nearly equal numbers of males and females. The majority of the girls obtained over 70 per cent. in marks. Most of the students had done well. Nearly 70 per cent. got more than 70 marks out of 100. Twenty girls got more than 80 marks. The increase in interest was due to the girls. Mr. Hall said that the papers had been marked each out of 100.

It was decided that the marks shown on Mr. Hall's sheet and that of Mr. Gostelow should be amalgamated in order to ascertain those who had succeeded in passing examination and those to whom prizes should be awarded.

Prizes.—It was decided to award the prizes at the next meeting of the Council.

Control of Dangerous Drugs in the Hands of the Wholesaler:

Society Representative on Select Committee.—The Secretary said that the Under-Secretary, Chief Secretary's Department, wrote under date of October 13 that the matter of ordering of dangerous drugs by pharmacists from the wholesaler and other matters are to be reviewed, and it is proposed that this review should be undertaken by a small committee consisting of a representative from the Pharmaceutical Society of New South Wales, the Police Department, the Health Department and the Chief Secretary's Department; such committee to furnish a report and recommendation to the Minister for his further consideration. The Department asked the Society to appoint a representative to act on the committee in question.

Mr. Cartwright said the letter followed an interview with the Minister, Mr. Kelly, on October 8, 1952, when in company with Mr. Winterton and the Secretary he had placed certain proposals before the Minister concerning the ordering of dangerous drugs from the wholesalers. The Department had wrongly interpreted the regulation permitting a doctor to phone a prescription to a pharmacist, interpreting this as meaning that the doctor could order dangerous drugs from the wholesaler.

It was resolved that Mr. Winterton be appointed as the Society's representative on the Select Committee, and that the Minister be requested to permit the Secretary to the Society to accompany Mr. Winterton to meetings of the Select Committee.

Country Visits:

Visit to Tamworth.—Mr. Fegent tabled the official report of the visit to Tamworth.

Mr. Read said he had prepared a list of books suitable for sending out to the country areas. This list would be reprinted and sent to Zone Secretaries. Mr. Read said he had also furnished a reply to a question from a country member concerning the dispensing of penicillin.

A.N.Z.A.A.S. Conference, Canberra, 1954.—Mr. Read said he had received a letter from the local Honorary

Secretary for the A.C.T., Mr. C. Barnard, advising that the next general meeting of the A.N.Z.A.A.S. would be held in Canberra during the period January 15 to 22, 1954. Mr. Barnard enquired details of the nomination made by the Sectional Committee of the Sydney meeting for the office of President of Section "O".

Mr. Read said that the Section Committee had nominated Mr. S. E. Wright as President of the Section for the next meeting.

Annual General Meeting 1953.—The Secretary said that "Science House" offered Tuesday, March 31, 1953, for the Society's Annual General Meeting. It was decided to reserve this date.

Correspondence.—Pharmaceutical Society of Great Britain, 18/10/52, (Rochdale and District Branch), advising that Mr. J. Slattery is now in Australia, his address being 31 Havelock road, East Hawthorn, Melbourne. The date of his visit to Sydney was not known. It was decided to write to Mr. Slattery at Melbourne enquiring when he would visit Sydney.

Parke Davis & Co. Ltd., advising that for some time past it has been the practice to invite pharmacy students to visit P.D.'s laboratories during the course of their study. The company would be willing to bring to Sydney, for two or three days, the two best students at the year-end examinations of the Pharmacy Board in each State. This visit to be offered as a prize. Asking for the reaction of the Society in each State. It was resolved to advise the company that the Society was in agreement with the proposal.

General.—Mr. Read enquired if the "Journal of Pharmacy and Pharmacology" was being received. The Secretary said it was. Mr. Read asked that the "Journal of Pharmacy and Pharmacology" should be left on the board room table for perusal.

Mr. Cutler suggested that the Society should send to the American Pharmaceutical Society and also to the Pharmaceutical Society of Great Britain the thanks of the Pharmaceutical Society of New South Wales for the courtesy and facilities extended to Mr. Cutler as a member and Past President of the Society and during his visit overseas. It was resolved accordingly.

The meeting terminated at 11.5 p.m.

THE GUILD

S.B.C. Meeting

The State Branch Committee of the New South Wales Branch of the Guild met at "Science House," 157 Gloucester street, Sydney, on November 13, at 7.30 p.m.

Present.—Messrs. L. W. Smith, J. Little, R. W. Felker, R. K. Strang, W. G. Sapsford, C. D. Bradford, K. E. Thomas, L. M. Fox, K. Jordan, R. S. Leece and O. C. V. Leggo.

Country Tours.—Mr. Smith said that reports of two tours had been distributed to members of the State Branch Committee, and a report of the third tour was being prepared. The dispensing of pharmaceutical benefits was not being carried out properly by some public hospitals in country towns. Circular No. 788 was not being interpreted properly.

Claude Neon Ltd. 5 Per Cent. Discount.—A member wrote stating that the company advised the discount did not apply to cash sales, but only to units ordered on a rental maintenance basis. It was decided to discuss this matter with the company concerned.

Hillcastle Pty. Ltd.—It was stated that no reply had yet been received from this company concerning the question of profit margins on certain lines. It was decided to write again to Hillcastle Pty. Ltd.

Glucojels.—Mr. Leggo reported that the sales of Glucojels from July 1 to September 30, 1952, were one ton in excess of the previous quarter's figures. The Committee received this report with considerable satis-



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NEW SOUTH WALES (Continued)

faction, as the large increase had followed the address by Mr. Leggo to travellers who had spiritedly co-operated in the selling of extra quantities of Glucojels.

Mr. Leggo said the factory would close over the Christmas period, and members should double up on their orders of Glucojels so as not to be out of stock.

Wrapping Paper.—Mr. Leggo produced a sample of wrapping paper cut to size and bearing the Guild insignia in colour. This wrapping paper could be supplied to Guild members in bundles of 1000 sheets for £2/18/6. The bundle would contain 8 oz. size, 4 oz and 2 oz. The use of wrapping paper cut to size would do away with wastage of paper.

It was decided to support Mr. Leggo's proposition, and to congratulate him on bringing it forward.

Dulwich Hill Pharmaceutical Association.—It was reported that the annual meeting and dinner of the Association would be held at Dulwich Hall, Dulwich Hill, on November 26.

"Kotex."—It was decided to send a letter of appreciation to Australian Cellucotton Products Pty. Ltd. concerning its action in making a rebate on Kotex published just prior to the reduction in retail price.

De-Control of Pharmaceutical Prescriptions.—The Prices Branch wrote stating it was not at present proposed to de-control pharmaceutical prescriptions. The meeting resolved to make application for an increase in dispensing fees to follow a differential scale, as operative in Victoria.

Retail Price List Commanded.—Mr. G. J. Johnston of Blackheath, wrote that he considered the new Retail Price List was an improvement. He suggested a thumb index be provided. On the other hand the Prescription Proprietaries List had degenerated. "Has the hard cover file been diced?" enquired Mr. Johnston.

It was decided to take steps to improve the binding of the Retail List and to punch the Prescription Proprietaries List to fit the black binder.

Issue of Price Lists:

Retail Price List No. 17.—Mr. Thomas said the No. 17 List was in course of compilation. It would be issued towards the end of the year.

Prescription Proprietaries List No. B/52.—Quotations were submitted for the printing of the List. It was decided to accept the quote from Simmons Ltd., of Glebe.

Dispensing Drug Tariff No. 2/52.—Mr. Thomas said he had ordered 1100 Dispensing Drug Tariffs from Melbourne. This action was confirmed. Mr. Conolly said the Federal Secretary advised that the Dispensing Drug Tariffs had been despatched from Melbourne per road transport on November 11. They would be posted out to members immediately upon receipt.

Correspondence.—Mr. L. A. Poole, Managing Director, Elliotts & Australian Drug Pty. Ltd., wrote, inviting the State President, his Executive, and members of the State Branch Committee to dinner, on a date following the return of Mr. Louis Cohen from abroad. The Committee had pleasure in accepting the invitation.

Mr. F. N. Little, Hon. Secretary, R.S.S.A.I.L.A. Chemists' Sub-branch, wrote, inviting the State President to attend the Christmas meeting of the sub-branch on December 4. Mr. Smith said he would be very pleased to accept the invitation.

Poisons Advisory Committee.—Replying to the Guild's request that it should be represented on the Poisons Advisory Committee to be set up under the new Poisons Act, the Minister for Health wrote advising it would be necessary to avoid making the Committee too unwieldy. The representative of the Pharmacy Board should be able to watch the interests of pharmacists.

It was decided to make further representations to the Minister for power to add a Guild nominee to the Committee.

Sutherland Shire Master Pharmacists' Association.—The President of the Association, Mr. Loxton, wrote stating that at the last meeting of the Association it had been agreed that a token of thanks and appreciation be forwarded to the State Branch Committee for its indefatigable work on behalf of Guild chemists, and declaring that the Association had every confidence in the Guild and its officers. The State Branch Committee appreciated the Association's kind remarks.

VICTORIA

PERSONAL and GENERAL

State News

Mr. H. W. Jones has purchased the pharmacy of Mr. K. W. Coventry, at 221 Barkly street, St. Kilda.

Mr. and Mrs. R. S. F. Greig, of Queensland, passed through Melbourne during the month on their return from the U.K. and Europe and called at the College of Pharmacy.

MANAGERS, RELIEVERS AND ASSISTANTS' LIST.

Miss W. J. Barker has terminated her appointment with Mrs. L. Hughes, Moorabbin, and has gone to Seymour to assist Mr. G. R. Ramsay.

Mrs. E. M. Barton fulfilled relieving appointments for Estate of M. Landmann, Auburn, Miss I. G. House, Murrumbeena, and Miss P. Penfold, Surrey Hills.

During Mr. Dean C. Briggs' absence, **Mrs. Briggs** was in charge of the pharmacy at Yarravonga.

Miss F. M. Carroll carried out relieving duties for Mr. R. B. Lumley, Chapel street, Windsor, Mr. C. M. Pleasance, Prahran, and Miss E. Thompson, Thornbury.

Mr. E. R. Courtney relieved Mr. G. H. Ross, Mansfield, for three weeks.

Mr. D. A. Emson acted as locum for his father, Mr. H. A. P. Emson, Caulfield, during his holiday in Tasmania.

Mr. N. G. Davies carried out relieving appointments for Mr. A. F. P. Galagher, East Preston, and Mr. G. P. Connard, Melbourne.

Mr. L. F. Gurry was in Geelong fulfilling relieving appointments for Miss A. S. Sutherland and Miss E. A. O'Meara.

Mr. B. L. Jacobson acted as reliever for Mr. V. M. Meagher, Brunswick.

Mr. S. Snyder, South Yarra, was relieved by Mr. M. Kellher.

Mr. N. H. Hunt was in charge of Mr. J. D. Kirkpatrick's pharmacy, North Fitzroy, for two weeks.

Mr. A. Krantz acted as manager of Mr. L. H. Walker's pharmacy, Bridport street, Albert Park, for two months before going to H. Francis & Co., Bourke street, Melbourne.

Mr. W. Knell fulfilled relieving appointments for Mr. A. F. Abfalter, Hawthorn, Beacham's Pharmacy, Australia Arcade, Melbourne, and Mr. A. Kean, St. Kilda.

Miss P. A. Matthewson has resigned from the staff of H. Francis and Co., Melbourne, and has accepted an appointment at the Royal Melbourne Hospital.

Mr. O. T. Higgins has been in Nathalia relieving for Messrs. N. J. A. Hobbs & Son.

Mr. W. M. T. Parry resigned his position as resident manager of Mrs. M. O. Lumley's pharmacy, West Footscray, for the purpose of moving into his own home, and is now employed by Mr. D. McG. Barker, Oakleigh.

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VICTORIA (Continued)

As Miss M. A. Paxton has resumed duty at her pharmacy at East Kew, Miss Shirley Marquis has terminated her period of management there.

Mr. F. Kelley fulfilled relieving appointments for Mr. E. Bradley, Melbourne, Mr. A. Aronson, Footscray, and Mr. G. R. Hore, Queen street, Melbourne.

During Mr. J. F. Isaac's absence, Mr. T. E. Manks was in charge of the Sandringham pharmacy.

Mr. D. P. A. Mayson will be assisting Mr. K. E. Hartley, of Warragul, until the end of the year.

Mr. R. Macfarlan was at Cunningham's pharmacy, Echuca.

Mr. E. Mitchell acted as locum for Mr. E. Bradley, Footscray.

Mr. H. Gorr, Kyabram, was relieved by Mr. C. P. O'Loughlin.

Mrs. Penman relieved Mr. E. H. Baker, of Warragul. Miss Savage was in charge of the late H. C. Morison's pharmacy, at Glenferrie, and Mr. N. R. Reeve took charge of the Camberwell pharmacy.

Miss M. A. Stoltz acted as locum for Miss M. L. Sharp, Myrtleford.

Mr. R. J. Tighe carried out relieving duties for Miss S. Devlin, Minyip, Mr. E. H. Edwards, Kaniva, and Mr. R. H. Sutton, Portland.

Mr. J. H. Rountree, Hamilton, was relieved by Mr. J. Rennick.

Mr. G. H. B. Revell assisted Mr. A. L. Noye, Melbourne.

During Mr. E. H. Trathan's absence, Mr. R. E. Trathan was in charge of the pharmacy at South Melbourne.

Mr. A. Shaw was in Echuca, where he took charge of Mr. R. M. Parkinson's pharmacy.

Mr. A. R. Salamy, Geelong, was relieved by Mr. P. Scott.

Mr. R. Sanderson acted as locum for Mr. J. A. Johns, Maffra.

Mr. J. K. Trinder was at the Geelong Hospital for two weeks, and Mr. C. H. Whiseley will be at the Warrnambool Base Hospital for some time.

Miss Worland acted as reliever for Miss J. W. Lineker, Warrnambool.

Mr. W. Wheeler carried out relieving duties for Mr. E. G. Heriot, Moonee Ponds, Mr. A. K. Sanders, Bright, and Mr. L. Levy, St. Kilda.

Mr. G. Teit was at the Alfred Hospital, Melbourne.

Mr. J. W. Miller has accepted a permanent position with Mr. C. H. Semmens, Sandringham.

Mr. J. K. Williams will be at Dickson's pharmacy, Geelong, indefinitely.

Business Changes.

Mr. E. J. Taylor has purchased Miss I. U. Hespe's pharmacy, Ormond.

Messrs. W. A. Bowden and G. M. Franklin have taken over the pharmacy of the late F. T. Bowden, Cr. Swanston and Collins streets, Melbourne.

Mr. H. W. Jones has purchased Mr. K. W. Coventry's pharmacy, 221 Barkly street, St. Kilda.

Mr. M. H. Lawson will open a pharmacy at 142 Nicholson street, East Coburg, in December.

Mr. T. P. Lane will open a pharmacy in Vincent street, Daylesford, in December.

MEMBERS OF HOSPITALS AND CHARITIES COMMISSION.

Mr. Cecil Leventhorpe McVilly, M.C., has been re-appointed Chairman, and Dr. Garvan Hurley, M.B. & Ch.B., F.R.A.C.S., and Mr. Claude Reginald Frenchman, members of the Hospitals and Charities Commission.

A notice to this effect appeared in the Government Gazette on October 29.

CONTROL OF THALLIUM AND THALLIUM PREPARATIONS TIGHTENED.

A proclamation in the Government Gazette of October 26 transfers Thallium and its preparations from Part II to Part I of the Second Schedule to the Poisons Act.

Poisons book entry and other formalities stipulated in the Act for Part I poisons therefore apply as from that date.

An amendment of the Regulations published in the same issue of the Gazette requires that preparations which contain Thallium and are put up for the purpose of destroying rats, mice, and other vermin, shall be recorded in a Sale of Poisons Book and signed for by the purchaser.

OBITUARY.

Hyman David Isaacs.

We regret to report the death, on October 7, of Mr. H. D. Isaacs. The late Mr. Isaacs passed the Victorian Qualifying Examination in 1929, and for a number of years was a representative of Burroughs, Wellcome & Co. (Aust.) Ltd., in which capacity he made many friends throughout Australia. More recently Mr. Isaacs had been engaged in pricing work for the Guild as assistant to Mr. S. J. H. Reid. We extend sincere sympathy to the members of the family.

CHEMISTS' WAGES BOARD DETERMINATION.

The following are the rates payable under the most recent amendment, and operate as from the first pay period in November, 1952:—

Apprentices.

1st Year	£2 8 6
2nd Year	3 4 6
3rd Year	4 7 6
4th Year	5 8 0
5th Year	7 19 6

Juvenile Workers.

16 years of age	£2 5 0
17 years of age	3 10 6
18 years of age	3 18 0
19 years of age	4 15 0
20 years of age	5 8 6

Other Employees.

	Males	Females
Manager, Ph.C.	£18 6 0	£15 9 0
Chief, Ph.C.	18 19 6	14 2 6
Ph.C.	15 13 6	12 16 6
Unregistered Assistant	13 6 0	10 9 0
Female Shop Assistant		9 6 6

STUDENTS PRESENT CHEQUE FOR £659/17/- TO COLLEGE BUILDING FUND.

The entire proceeds from the Pharmacy Ball 1952, were donated by the Student Representative Council to the College of Pharmacy War Memorial Building Fund at the meeting of the Council of the Pharmaceutical Society on November 5.

Mr. Geoff Lowe, President, Miss Margaret Ross, and Miss Jean Elder, formally handed over a cheque for £659/17/-. They expressed the pleasure of the students in being able to assist the Building Fund in this way, and hoped that, as a result, students of the future would benefit.

The President, Mr. A. G. Davis, in accepting the cheque, expressed the thanks and appreciation of the Council for their gesture. The amount contributed was a record, and the students were to be congratulated on their fine effort, good management and, above all, their interest and thought for the future of the College. Mr. V. G. Morrieson, Chairman of the Trustees of the Building Fund, and Mr. S. J. Baird, Honorary Treasurer, supported Mr. Davis in his words of thanks and appreciation.

LECTURER IN CHEMISTRY

The College of Pharmacy, Melbourne, requires the services of a Lecturer in Chemistry and Pharmaceutical Chemistry.

Salary range, £850 to £1100 per annum.

Commencing salary will depend on qualifications and experience.

The duties include lecturing and laboratory supervision to various years of the pharmacy course, under the direction of the Dean. The position offers good prospects to a young man interested in pharmacy and pharmaceutical chemistry. A Science Degree, with chemistry as the major subject, and some experience of pharmacy or manufacturing pharmacy are desirable.

Selected applicant would be required to commence February 1, 1953.

Applications to Secretary, Pharmaceutical Society of Victoria, 360 Swanston Street, Melbourne.

LECTURER IN BOTANY

The College of Pharmacy, Melbourne, requires the services of a part-time Lecturer in Botany.

Qualifications, Science Degree with Botany as major subject. Experience in Pharmaceutical Botany and knowledge of materials of pharmacy will be an advantage. Duties include the giving of not more than two lectures per week to Second Year Students of the College, and taking charge of correspondence tuition in Botany for country students of the College.

Emoluments, approximately £250 to £300 per annum.

Applications to Secretary, Pharmaceutical Society of Victoria, 360 Swanston Street, Melbourne.

PHARMACY BOARD OF VICTORIA

Registration Renewal 1953

Pharmaceutical Chemists are reminded that under the provisions of the Medical Act, 1950, it is necessary to renew registration and pay the annual registration renewal fee of £1/1/- in December each year.

Renewal fees for 1953 are now payable and should be forwarded to the Registrar to ensure retention of name on the printed Register for 1953.

F. C. KENT, Registrar.

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AGENTS SYDNEY

VICTORIA (Continued)

MR. ALBERT DORMAN HONOURED ON RETIREMENT FROM GUILD COMMITTEE.

Mr. A. Dorman, of Richmond, who retired after 25 years of service on the Victorian State Branch Committee of the Guild, was guest at a representative dinner in the Malvern Town Hall on October 30. This dinner was organised by members of the No. 3 District, which Mr. Dorman had represented for many years. Mr. W. R. Iliffe, the State Branch President, occupied the chair, and extended a welcome to the guests, who included the Presidents of every State Branch of the Guild in the Commonwealth, and delegates to the Federal Council of the Guild, which was meeting in Melbourne that week.

The toast to Mr. Dorman was proposed by Mr. Eric Scott, Federal President of the Guild, in fitting terms. He said the members of pharmacy generally did not realise what the "Dormans" of pharmacy had done and were doing. It was so easy to criticise the actions of representatives who laboured devotedly in the cause of pharmacy. Mr. Scott enumerated the many spheres in pharmacy in which Mr. Dorman had given freely of his time and ability. These included representations on P.A.T.A., membership of the Council, and Presidency of the Pharmaceutical Society of Victoria, Chairmanship of the Lodge Dispensing Committee of the Guild, and an indefatigable worker for a quarter of a century. He had done a magnificent job, and all present were proud to do honour to him. They regretted the circumstances which now impelled him to resign from these activities, and they knew they would always have his advice and counsel so long as he was able to give it to them.

The toast was supported by Mr. E. C. McClelland, who said that Mr. Dorman had carried on the tradition of service established in that particular district, which could lay claim to having pioneered the organisation of the business side of pharmacy through the South Suburban Chemists' Association, Metropolitan Chemists' Association and then the Guild, which had become the most powerful organisation in pharmacy throughout Australia. Albert Dorman was one of the founders of the M.C.A. and one who had helped to bring the Guild to the position it was now in. A characteristic of his work was that it was unspectacular, but nonetheless solid and lasting.

The Chairman, Mr. Iliffe, at this stage presented to Mr. Dorman, as a memento of the occasion, a gold wristlet watch from the members. This presentation from the members of the Guild marked their appreciation of Mr. Dorman's services and their affection for him. He trusted that Mr. Dorman would derive much pleasure from the gift, and would always consider it as a reminder of his very happy association with the S.B.C.

Mr. Dorman said he was greatly moved by the tribute which had been paid to him and by the remarks of Mr. Scott and Mr. McClelland. It was a highlight in his experiences, and an occasion which would never fade from his memory.

He had made many valued friendships, and, although there had been a great deal of hard work there was much pleasure in that work. He was particularly glad to see his old colleague, Mr. Wetwood, and other early colleagues present. Naturally the pleasure of the evening was tinged with some regret at the thought that he was now leaving official pharmacy, but he had to make a decision because he found he was not now able to give the time the work demanded.

Mr. Dorman concluded his thanks to a round of sustained applause.

The Toast of the Federal Council of the Guild.—This toast was entrusted to Mr. H. A. Braithwaite, who briefly traversed the work done by the early officers of the Guild and earlier members of the Federal Council. He paid particular tribute to the father of the

Guild, Mr. A. W. McGibbons, and spoke feelingly of the contribution of the late Reg. Rutter, who died so recently after representing Queensland pharmacy at the Centennial Convention of the American Pharmaceutical Association in Philadelphia. These, and men associated with them, had laid a wonderful foundation and had done outstanding background work. Taking the example of Mr. William Morris Hughes on the occasion of the celebration of his 88th birthday, Mr. Braithwaite recounted some of the pleasant experiences associated with his official work for pharmacy—experiences which brought him into association with leaders of the Guild in other States and which were never to be forgotten.

Mr. G. H. Dallimore, Deputy Federal President, responded to the toast and congratulated District No. 3 on the excellent dinner provided. It was a high honour to him to respond to the toast so ably proposed by Mr. Braithwaite. The Guild had developed in Australian pharmacy a standard second to none in the world, and one of which every Australian pharmacist should be proud. Through the efforts of the Guild, pharmacists throughout the Commonwealth were united and brought into close union. Very few were now outside the Guild, and he trusted that no effort would be spared to bring these within the Guild ranks. Pharmacy, in his opinion, was now on a higher plane both professionally and commercially than ever before.

Mr. Sydney Hull proposed the toast of the guests, and, in humorous vein, expressed the opinion that he could not speak freely because of the restrictions placed upon him by certain Guild rules. He expressed a very sincere and warm welcome on behalf of the Victorians to the visitors from other States.

Mr. A. K. Lloyd supported the toast, and during his remarks referred to the democratic nature of the Guild and its achievements.

The function closed after Mr. C. P. A. Taylor had moved a vote of thanks to the Chairman.

WEIGHTS AND MEASURES ACT

Regulations Gazetteed.

Regulations under the new Weights and Measures Act were published in the Government Gazette on October 9, 1952, and came into operation on October 29.

These Regulations contain many provisions of direct interest to chemists, and the following extracts are published for general information:

Definitions. — "Apothecaries measure" means any measure denominated by fluid ounces, fluid drachms or minims, or of a type commonly used by apothecaries.

"Beam-scale" means an equal-armed weighing instrument, the pans of which are below the beam.

"Baby-weighing scale" means any personal weighing machine which is of a capacity not exceeding forty pounds.

"Bottle" means a hollow vessel of blown glass.

"Counter scale" means any equal-armed weighing instrument in which the pans are above the beam, and of which the capacity is not more than one hundred-weight.

"Drug" means any substance used as medicine or in the composition or preparation of medicines, whether for external or internal use.

"Personal Weighing Machine" means any weighing instrument which indicates in any manner whatsoever the weight of persons and, (a) for the use of which a charge is made, or (b) which is on any premises used for trade, and may without charge be used by or for members of the public.

"Tolerance" means the amount of the greatest allowable error or departure from true value or performance.

Standards. — Provision is made for the keeping of standards and secondary standards by the Superintendent of Weights and Measures, against which local standards shall be verified at specified intervals.

Regulation 13 provides that all weights, measures and instruments shall be tested in a clean condition, and,



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VICTORIA (Continued)

if necessary, an inspector shall call upon the owner to clean the same.

Inspectors empowered to obliterate any existing marks or verification or date marks on every weight, measure or instrument which does not comply with the Regulations or on which the mark of verification or date mark is illegible, or on which the capacity, graduation marks, etc., are illegible or appear to have been altered since the last verification, or which have not been reverified or stamped within the period prescribed.

In any case where a weight, measure or instrument does not comply fully with the requirements of the Regulations, but the degree of non-compliance is not in the opinion of the Inspector such as to require the immediate obliteration of the mark, he may leave a notice with the owner requiring him to have the weight, measure or instrument corrected within a stated period, not exceeding 28 days. In certain circumstances the inspector may defer obliterating a mark of verification and date mark.

Where the error of a weighing machine is due only to imperfect balancing or levelling, it may be corrected forthwith in the presence of the inspector by means provided for such purpose, and in that case the mark of verification and date mark shall not be obliterated.

If a weight, measure or instrument has been in use prior to the date of the Regulations and which contravenes the Regulations in only a minor degree an inspector may, at his discretion, refrain from obliterating the verification and date marks.

Approval of Weights, Etc.—When a weight, measure, or instrument has been submitted for verification and tested and approved by an inspector, he shall mark such weight, measure or instrument with a mark of verification of approved design and also a date mark. Due provision is made for modification of this requirement in the case of instruments which may be damaged by the impression of the mark.

Design of Weights.—All weights must be of approved shape or design. The following specifications which are of interest to chemists, are taken from the list:—

36. All troy, apothecaries and grain weights shall be—
 - (a) if not less than one ounce troy, one ounce apothecaries or four hundred and eighty grains, of brass, gunmetal, bronze or other approved metal and circular-cylindrical with handles or knobs; or
 - (b) if of less than one ounce troy, one ounce apothecaries or four hundred and eighty grains, of brass, gunmetal, bronze platinum, aluminium or other approved metal and circular-cylindrical with knobs, flat or of wire.
37. (a) All iron metric weights (including counter-weights on weighing instruments) shall be hexagonal.
(b) All metric weights other than iron weights shall be circular-cylindrical with handles or knobs, hexagonal, flat or of wire.
38. All metric carat weights shall be—
 - (a) if of not less than five metric carats, of hard brass, gunmetal, bronze or other approved metal and circular-cylindrical with knobs; and
 - (b) if of less than five metric carats, of aluminium or other approved metal and flat or of wire.
39. No weight shall have more than one adjusting hole.

Provided that weights with more than one adjusting hole, which have been stamped in accordance with the Weights and Measures Act 1928 or corresponding previous enactment, may be re-verified until ten years from the date of these Regulations.

40. No weight with a shallow conical hole in the base shall be brought into use for trade after the date of these Regulations.

41. (a) No weight of less than one ounce and no metric carat weight shall have an adjusting hole.

(b) Every iron weight shall have an adjusting hole.

Conditions under which adjusting holes may be applied in any weight are set out.

Stamping of Weights.—Regulation 47 stipulates that every weight shall have its denomination or the permissible abbreviation thereof clearly stamped on it in letters or in figures and letters proportionate to the size of the weight; provided that weights made of wire shall be bent into distinctive forms to indicate the respective denominations.

Apothecaries Measures and Pipettes.—Regulation 64, which relates to apothecaries measures and pipettes, is as follows:—

64. (a) Every apothecaries measure shall—

- (i) be of cup or beaker shape or if—
 - (1) graduated in the Imperial system and of less than ten fluid ounces capacity; or
 - (2) graduated in the metric system and of less than two hundred and fifty millilitres capacity;

inverted conical;

(ii) stand firmly on its base without rocking and have its axis perpendicular to the base;

(iii) if inverted conical, have the vertical angle approximately fourteen degrees;

(iv) have a pouring lip and otherwise be of such form and construction that, the measure having been filled with water to the highest graduation mark, the contents may be poured from the lip in a stream falling clear of the outside of the measure;

(v) be graduated in such a manner that each line indicates the respective volume contained by the measure at a temperature of 68 degrees Fahrenheit;

(vi) have the main graduations of sufficient length to subtend an angle of from thirty-five degrees to forty degrees at the vertical axis of the measure, and other graduations not less than half the length of the main graduations;

(vii) have all graduation marks fine, clearly etched or engraved, parallel to the base and an interval of not less than one-twelfth of one inch between any two such marks;

(viii) if submitted for verification after one year from the date of these Regulations have, on the side of the measure diametrically opposite the numbered graduation scale, an unnumbered mirror image of the numbered scale, such that when the volume is being read, the front and back portions of any graduation mark may be observed simultaneously;

(ix) be sufficiently rounded internally, at the bottom, to avoid difficulty in cleaning;

(x) be of good quality transparent glass with walls not excessively thick nor showing local departures from uniformity; and

(xi) if of squat form for the measurement of viscous liquids, be prominently marked with the letter "S" or the word "SQUAT."

(b) Every apothecarie pipette shall—

- (i) deliver volumes of distilled water corresponding to the various graduation marks when tested in accordance with paragraph (c) of this Regulation and unless otherwise approved shall be of a capacity of ten, thirty or sixty minims or one, two or five millilitres; and

- (ii) have as graduation marks fine, clearly etched or engraved, permanent lines of uniform thickness, lying in planes perpendicular to the axis of the pipette with no evident irregularities in their spacing.

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VICTORIA (Continued)

(c) The method of testing an apothecaries pipette shall be as follows:—

- (i) the pipette shall be held in a vertical position filled with distilled water at a short distance above the graduation mark to be tested, and the water retained in the pipette by pressing a finger on to the top of the pipette;
- (ii) the outside of the jet shall be wiped dry with a cloth;
- (iii) by reducing the pressure of the finger, water shall be allowed to run out slowly;
- (iv) as the descending water surface approaches the graduation mark to be tested, the pressure of the finger shall be increased so that the water surface is brought to rest with the lowest point of the meniscus in the horizontal plane containing the top edge of the graduation mark;
- (v) the drop of water then adhering to the jet shall be removed by bringing the inside of a suitable glass vessel into contact with the jet and detaching the drop on to the side of the vessel;
- (vi) the finger shall then be removed from contact with the top of the pipette, which shall be allowed to deliver into a previously weighed receiving vessel, the pipette being held slightly inclined so that the tip of the jet is in contact with the inside of the vessel;
- (vii) the pipette shall be allowed to drain for fifteen seconds after visible outflow has ceased, the jet remaining in contact with the inside of the receiving vessel throughout this period and the instant at which visible outflow ceases being determined when the meniscus comes to rest slightly above the lower end of the jet;
- (viii) the weight of the water delivered shall be determined by weighing the receiving vessel into which it has been delivered, the temperature of the water being then determined;
- (ix) from the data obtained in accordance with sub-paragraph (viii) of this Regulation, the volume of water delivered shall be determined, by the use of approved tables; and
- (x) no method of emptying, such as blowing out, which expels water completely from the jet or increases the natural rate of delivery shall be used.

Tolerances on apothecaries weights, measures and pipettes shall be as specified in table 3 of the Regulations, as follows:—

oz. Apoth.	Denomination. Apothecaries Weights.	grain	Tolerance on Verification in Excess only.		
			9	10	15
10		1.0			0.4
8		0.8			0.4
6		0.8			0.5
4		0.6	90		0.5
2		0.4			0.6
1		0.3	140		0.8
drachms			200		1.0
4		0.2			0.4
2		0.15			0.6
1		0.10			0.7
scruples					0.8
2		0.08			1.0
1½		0.08			1.5
1		0.06			2.0
½		0.04			3.0

grains	6	..	..	..	..	..	..	0.03
	5	..	..	..	..	..	..	0.03
	4	..	..	..	..	..	..	0.03
	3	..	..	..	..	..	..	0.025
	2	..	..	..	..	..	..	0.020
	1	..	..	..	..	..	..	0.015
	½	..	..	..	..	..	..	0.010

Apothecaries Measures.

Capacity Corresponding to Graduation Mark.	On Measures Other than "Squat" Measures		Tolerance in Excess or Deficiency.
	minims	minims	
Imperial System—			
minims	10	..	1
	20	..	1
	40	..	2
	60 (= 1 fluid drachm)	..	2
	90 (= 1½ fluid drachms)	..	4
	120 (= 2 fluid drachms)	..	5
	160	..	6
	180 (= 3 fluid drachms)	..	7
	240 (= 4 fluid drachms)	..	8
	320	..	10
	360 (= 6 fluid drachms)	..	12
	420 (= 7 fluid drachms)	..	12
	480 (= 8 fluid drachms = 1 fluid ounce)	..	14
	fluid drachms	10	11
	12 (= 1½ fluid ounces)	..	12
	14	..	14
	16 (= 2 fluid ounces)	..	15
	24 (= 3 fluid ounces)	..	16
	32 (= 4 fluid ounces)	..	17
	48 (= 6 fluid ounces)	..	18
	64 (= 8 fluid ounces)	..	20
Metric System—			
millilitres	1	..	0.08
	2	..	0.12
	3	..	0.16
	4	..	0.20
	5	..	0.25
	8	..	0.3
	10	..	0.4
	15	..	0.4
	20	..	0.5
	30	..	0.6
	50	..	0.8
	90	..	1.0
	140	..	1.0
	200	..	1.0
	90	..	1.5
	140	..	2.0
	200	..	3.0

These tolerances shall apply to graduation marks corresponding to the capacities stated irrespective of the total nominal capacity of the conical measure concerned. For any graduation mark corresponding to a capacity not given in the above table the tolerance for the next larger tabulated capacity shall be used.

On flasks and burettes used in pharmaceutical dispensing, or if used for other purposes and graduated

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VICTORIA (Continued)

or denominated in terms of (Imperial) apothecaries measure, the tolerances shall be one-half of those specified for apothecaries measure.

Except for pipettes used in pharmaceutical dispensing and of capacities of 10, 30 or 60 minimis, or 1, 2 or 5 millilitres (for which the tolerances shall be as separately specified hereinafter), the tolerances on pipettes—
 (a) used in pharmaceutical dispensing; or
 (b) graduated or denominated in terms of (Imperial) apothecaries measure and used for purposes other than pharmaceutical dispensing,
 shall be one-quarter of those specified above.

Provided that the tolerances for apothecaries measures of beaker form and apothecaries pipettes of the following total capacities shall be—

Tolerance at	
Any Graduation	
Mark in Excess	
or Deficiency.	

Total Capacity.

Apothecaries Measures of Beaker Form.

Imperial System— fluid ounces	minims
10	80
20	80
40	160

Metric System— millilitres	millilitres
500	5
1,000	7

Apothecaries Pipettes.

Imperial System— minims	minim
10	1
30	1
60	1

Metric System— millilitres	millilitre
1	0.02
2	0.02
5	0.05

Metric Weights.

Metric Weights Other Than Metric Carat Weights.
 Tolerance on
 Verification in
 Excess only.

Denomination.	*I.	*II.	*III.
kg.	mg.	mg.	mg.
20	2000	1000	500
10	1800	800	400
5	1000	500	250
2	600	300	150
1	400	200	100

grammes	300	150	75
500	200	100	50
200	160	80	40
50	100	50	25
20	60	30	15
10	40	20	10
5	—	15	7.5
2	—	10	5
1	—	7	3.5
0.5	—	5	2.5
0.2	—	3	1.5
0.1	—	2	1
0.05	—	1.5	0.8
0.02	—	1.0	0.5
0.01	—	0.7	0.4
0.005	—	0.3	0.15
0.002	—	0.2	0.10
0.001	—	0.1	0.05

I. denotes weights made of iron; II. denotes weights not made of iron; and III. weights marked "H" (for pharmaceutical dispensing or the weighing of precious metals).

Denomination.

Tolerance on
 Verification in
 Excess only.

Metric Carat Weights.

C.M.	mg.
500	7
200	5
100	3.5
50	2.5
20	1.5
10	1.0
5	0.8
2	0.5
1	0.3
0.5	0.2
0.2	0.15
0.1	0.10
0.05	0.07
0.02	0.05
0.01	0.05
0.005	0.03

Scales and Balances.—Tolerances are given also for beam scales, counter scales, spring balances, etc. For dispensing scales of any type temporary requirements are set out as follows:

Tolerance on Verification of
 any Load up to the Full
 Capacity.

In Capacity.	In Sensitiveness Reciprocal.	In Excess or Deficiency.
Dispensing Scales of any type (Temporary Requirements).		

1 oz.	0.2 grain	0.2 grain
2 oz.	0.5 grain	0.5 grain
4 oz.	1.0 grain	1.0 grain

8 oz.	1.5 grain	1.5 grain
1 lb.	2 grains	2 grains
2 lb.	3 grains	3 grains

Personal Weighing Machines.—Special provisions are contained in the Regulations. Each personal weighing machine shall have the name of the owner conspicuously marked on it, be used in a level position for the sole purpose of weighing persons, have special proportions permanently and conspicuously marked on it, have the value of the smallest graduation (if any) not exceeding—(i) four drams in the case of a baby-weighing scale; and (ii) one pound if not a baby-weighing scale.

The Regulations also contain provisions relating to the requirements of accuracy in weighing machines.

Verification of Weights and Measures.—The owner of every weight, measure and instrument used for trade is required by the Regulations to arrange for its submission for verification or re-verification at prescribed times.

Special Provision for Apothecaries Measures, etc.—Certain types of weights and measures are required by Regulation 187 by reason of their construction and design to be dealt with by the Central Administration and not by local administering bodies.

Apothecaries measures, apothecaries weights, beam scales of certain classes, grain weights, measures (including burettes and pipettes) made of glass (other than lubricating oil bottles), metric weights and measures and instruments graduated in the metric system, pharmaceutical dispensing scales, troy weights.

Verification, re-verification, inspection and stamping of weights and measures within this list, and prosecutions of offences in relation to them, is declared to be a function of the central administration and not of local administrations.



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VICTORIA (Continued)

Exemptions from Stamping.—The following weights, measures and instruments are exempted from stamping of verification:—

- (i) All grain, troy and apothecaries weights of flat shape under one grain or of wire;
- (ii) all metric carat weights of wire or not over one-fifth of one metric carat;
- (iii) all glass bottles stamped with what purports to be the capacity thereof, when used in the retail distribution of milk or cream; and
- (iv) all weights, measures and instruments so small or so frail that it is impracticable to stamp the mark of verification thereon.

Any measure or capacity made of glass or enamelled metal, on which the original mark of verification made under the Acts or any corresponding previous enactment remains distinctly visible, shall be exempted from re-verification.

It is an offence under the Regulations to use for trade purposes or to have in possession any weight, measure or instrument on which the mark of verification has been obliterated by an inspector.

The sub-dividing of any verified measure is prohibited unless the owner defaces the mark of verification, and the use for the purpose of trade of any measure which has been sub-divided and has not been re-verified is similarly disallowed.

Weights for Use in Dispensing.—Regulation 195 says no person shall use any weight in pharmaceutical dispensing, other than (1) an apothecaries weight; or (2) a metric weight (not made of iron) stamped with the letter "H" and complying with the relevant special tolerance specified under III. under "Metric Weights other than Metric Carat Weights" in Table 3 of these Regulations (see above).

Net Weight to Be Stamped on All Packages.—All goods sold by retail enclosed in a package, other than goods of which delivery is made immediately after the goods have been weighed or measured in the presence of the purchaser, or goods exempted by these Regulations from such stamping, shall have the net weight or net measure of the goods legibly stamped on the outside of the package or on a label securely attached thereto.

The weight of interleaving paper used in packages containing COTTON-WOOL and marked "Interleaved" may be regarded as part of the net contents of such packages provided that the proportion of the interleaving paper shall be in accordance with the following Table:—

Net Weight marked on Package.	Maximum Proportion of Interleaving Paper.
Not less than eight ounces	Ten per centum
Less than eight ounces but not less than four ounces	Thirteen per centum
Less than four ounces	Sixteen per centum

of the net weight of the cotton - wool and interleaving paper together.

Exemptions from Net Weight Requirement.—The following are among the goods exempted from the stamping of net weight or net measure: (1) Any package containing goods (other than drugs) of less than one ounce weight or less than one fluid ounce measure; (2) medicinal mixtures compounded to the order of the purchaser; (3) toilet, laundry and medicinal soaps in the form of bars or cakes; (4) toilet preparations in collapsible tubes; and (5) tooth paste.

Standardisation of Packages.—Articles of food and other specified products shall, after one year from the date of operation of the Regulations, be sold only in packages of standardised weight specified in the Regulations.

PHARMACY BOARD

Monthly Meeting

The Pharmacy Board of Victoria met at 360 Swanston street, Melbourne, on November 12, at 2.15 p.m.

Present.—Mr. S. J. Baird (President) in the Chair, Messrs. H. A. Braithwaite, A. W. Callister, W. R. Iliffe, N. C. Manning, A. W. McGibbony, W. Wishart, and the Registrar.

Correspondence.—A considerable amount of correspondence, including the following letters, was dealt with:—

To several chemists, pointing out irregularities in Dangerous Drugs Registers, and calling for explanations. In two instances, where replies were not received, the Board instructed that the Registers be called in for inspection.

From the National Trustees Executors and Agency Co., applying for permission to carry on the two pharmacies of the late H. C. Morison for a period of 12 months under the management of registered pharmaceutical chemists. Application granted.

From Mrs. J. O. Ludbrook, applying for extension of the permit to carry on the pharmacy of her late husband, Mr. R. A. Ludbrook, at Horsham. Extension for three months granted.

From the Pharmacy Board of Tasmania, seeking information regarding the method of marking Practical Pharmacy Examinations. The Registrar said that a considerable amount of detailed information had been supplied by Mr. A. W. Callister, and that a letter of thanks for this information had been received from the Tasmanian Board.

To the Secretary to the Premier, asking for an official letter of introduction for use by Mr. A. T. S. Simons when overseas.

To an apprentice, calling for an explanation in connection with a discrepancy in the subjects shown in his Matriculation Certificate, as compared with the subjects claimed on application for admission.

From a chemist, enquiring re reciprocity with Malaya. Advised that no reciprocal agreement exists, and suggesting that enquiry as to conditions of practice in Malaya be submitted to the Malayan Pharmaceutical Association.

To the Department of Health, submitting recommendations of the Board in regard to the scheduling and control of Thallium, its salts and preparations.

To the Chief Commissioner of Police, asking if arrangements can be made for Det. Sgt. DeLany to address members and executive members of pharmaceutical organisations on the responsibilities of the Police Department in relation to the control of Dangerous Drugs.

Formal Business.—The following formal business was transacted during the month:—

Application for Registration.—Paula Dorothea Jacob (Cert. Ph. Council of W.A.).

Restoration of Names to Register.—Sylvia Vera Flynn, James Edward Simpson.

Managers and Relievers Notified.—62.

Business Changes Notified.—2.

New Pharmacy Opened.—1.

Apprenticeship Indentures Registered.—1.

Apprenticeship Indentures Transferred.—5.

Certificates of Exemption Issued.—3.

Certificates of Identity Issued.—3.

Opium Permits Issued.—3.

Permits to Purchase Cyanide Issued.—5.

Licences as General Dealers in Poisons Issued.—4.

Licences to Sell Poisonous Substances Issued.—45.

Police Reports re Poisonings.—1 Nicotine—Fatal; 1 Strychnine—Fatal; 1 Rat Poison—Fatal; 1 Cyanide—Fatal; 1 Carbital Tablets—Fatal; 1 Barbiturate—Fatal.

Applications for Licence to Hospital to Have Dangerous Drugs in Possession.—16.

Early Entries—November Final Examination.—3.

VICTORIA (Continued)

Overseas Applicants—Probationary Employment or Apprenticeship.—An enquiry was received from an overseas applicant as to whether regulations had been made to provide for acceptance of a probationary period of employment in a pharmacy under prescribed conditions in lieu of apprenticeship under indentures. It was resolved that the applicant be informed that regulations of this kind had been discussed, but had not been made. It was further resolved that this matter be listed for further discussion at the next meeting.

Bulassolidin.—A communication was received from the Chief Health Officer, Department of Health, suggesting that consideration be given by the Board to the control of this substance. It was resolved that the opinion of the members of the Poisons Schedules Advisory Panel be obtained on the suggestion.

Cocaine Substitutes.—The Registrar reported that a proclamation giving effect to the Board's recommendations concerning the reclassification of cocaine substitutes in the Poisons Schedules was published in the "Government Gazette" of October 29. Copies would be sent to all chemists and would be published in the Journal.

Organic Insecticides.—The Registrar tabled a copy of the "Victoria Government Gazette" for October 29, including a copy of the proclamation adding poisonous organic insecticides to the Fourth Schedule to the Poisons Act.

Complaint from Veterinary Board.—A communication was received from the Veterinary Board, drawing attention to the use of the words "veterinary experience" in a broadcast advertisement of a country member. After discussion the Board directed that a letter be sent to the chemist concerned requesting him to modify the announcement.

A.P.C. Mixture.—A letter was received from a company following a warning from the Board that it should not distribute for sale by unauthorised persons A.P.C. mixture. It was asked whether the sale of powders in a bottle with instructions to add water or sale in capsules would be permitted. The ruling of the Board was that only the standard A.P.C. powders and tablets were exempted by the 1951 amendment of the Poisons Act.

Inspectors' Reports, Enquiries, Etc.—Reports were submitted in reference to breaches of the Poisons Acts and Regulations by a number of storekeepers and of the Dangerous and Specified Drugs Regulations by several pharmaceutical chemists. In all cases the Board directed that legal proceedings be taken.

Prescriptions not cancelled: Information relating to non-cancellation of prescriptions for Specified Drugs was submitted. The Registrar was instructed to write to the chemists concerned, pointing out the necessity for strict compliance with the Regulations.

Chemical Sets containing Poisons: The President reported on interviews during the month with distributors of chemistry sets which contained scheduled poisons. The dangers of allowing these sets to fall into the hands of children was stressed, and the distributors had withdrawn poisons from the sets which were being marketed. The question of preparation and distribution of sets for enrolled students of recognised colleges and teaching institutions was under consideration.

Routine reports and enquiries for the month were submitted by the Chief Inspector and Inspector Ahern.

November - December Examinations.—Details of arrangements for the conduct of the November-December Examinations were discussed and finalised.

A revised form of supervisor's report for the Final Practical Dispensing Examination was submitted by Mr. N. C. Manning and approved.

Specified Drugs in Remote Areas.—An enquiry was received from a pharmaceutical chemist in a remote

area as to whether he could be authorised to supply certain Specified Drugs for emergency use without prescription. The Board directed that a reply be sent to the effect that there was no authority in the Poisons Act or Regulations for the Board to grant such permission.

Labelling of Ampoules.—An enquiry was received from a manufacturing firm asking whether a preparation for injection required to be labelled strictly in accordance with the Regulations applying to preparations in the Seventh Schedule. The Board ruled that the details of the Regulations must be observed in regard to the wording of the containers, but that it would accept as a compliance the placing of the words on the carton, as it was not practical to place the labels directly on the ampoules.

Depot for Distribution of Medicines.—Further correspondence with a dispensary regarding collection of prescriptions and distribution of medicines from a depot was presented. The Board directed that a further letter be sent to the Secretary of the Dispensary, pointing out that in its opinion the requirements of the Regulations were not being observed.

Oestrogen Preparations.—A recommendation was received from the Department of Health that the Board should consider extending the present restrictions on the sale of oestrogen preparations to preparations intended for veterinary use. It was decided that this matter be discussed with the Poisons Schedules Advisory Panel.

Practical Pharmacy.—A draft letter relating to the obligations of masters in the training of apprentices in practical dispensing was considered by the Board. The President said this draft had been prepared by Mr. N. C. Manning and circulated for consideration by the members of the Board. The Board was indebted to Mr. Manning for the thought given to the matter. If approved it was intended that copies of the communication be sent to every chemist taking an apprentice in the future. The draft was approved.

Financial.—The Honorary Treasurer submitted the monthly financial statement, and accounts totalling £712/6/3 were passed for payment.

The meeting then adjourned.

Council Meeting

PHARMACEUTICAL SOCIETY

The Council of the Pharmaceutical Society of Victoria met at 360 Swanston street, Melbourne, on November 5, at 9.45 a.m.

Present.—Mr. A. G. Davis (President) in the chair, Mrs. P. A. Crawford, Messrs. S. J. Baird, L. Hamon, A. L. Hull, F. W. Johnson, L. Long, V. G. Morison, E. Scott, I. J. Thompson, and the Secretary.

Mr. K. G. Attiwill (Public Relations Secretariat) was in attendance for part of the meeting.

Correspondence.—Letters submitted to the Council included the following:

From the Medical Secretary, British Medical Association, forwarding revised draft of statement on dispensing and prescribing difficulties for submission to the Medical Journal.

To the Honorary Secretary, N.U.P.S.A., advising that request for facilities for meeting at the College during the Interstate Pharmacy Students' Conference, to be held in January, 1953, had been granted.

From the Pharmaceutical Council of Western Australia, seeking information regarding establishment of State B.P. Revision Committees.

To the Lord Mayor's Fund for Metropolitan Hospitals and Charities, forwarding donation.

To a member, suggesting he reconsider his resignation.

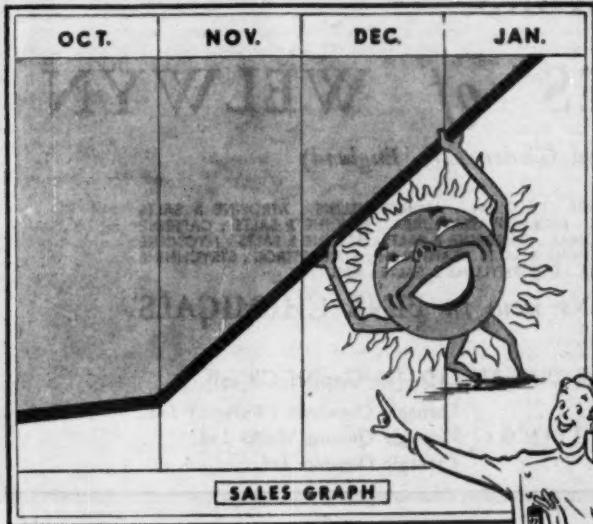
To the Secretary, Pharmaceutical Society of Great Britain, forwarding advice of forthcoming visit of the Dean of the College to Great Britain in 1953.

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VICTORIA (Continued)

From an anonymous donor, recently graduated, forwarding cheque for £22/16/-.

To the Superintendent of Telephones, endorsing the applications of two members for the installation of telephones.

From the Dean, reporting that Mr. Norman F. Keith had addressed students of each of the four years of the course on the subject of prescription pricing.

From the Honorary Secretary, Women Pharmacists' Association, offering to subsidise the installation of heating and washing facilities for social functions. Resolved that the Council's thanks and appreciation be conveyed to the Women Pharmacists.

From Mr. A. T. S. Sissons, Dean, and Mr. N. C. Manning, Lecturer, reporting visit to Bendigo on October 17 and 18 to meet correspondence course students and discuss the year's work with them.

New Members.—The following applicants for membership were balloted for and elected as full members:

New Members: John Ernest Bullock, Kevin O'Brien, Roy Sanderson, Geoffrey Alfred Saunders.

Transfer from Apprentice List: Thomas Dixon Adamson, Kerry John Harry, Joseph Kiers, Douglas Peel Arthur Mayson, Charles Patrick O'Loughlin, Maureen Wilson Stewart.

Honorary Librarian's Report.—The Honorary Librarian (Mrs. P. A. Crawford) said she had received a memorandum from the Dean recommending that the following books be purchased as additions to the Library:—

"Science in Australia," report of a Seminar at the National University of Australia.

Cheshire & Co., Melbourne.

"Organic Chemistry," by E. E. Turner, F.R.S., and Margaret Harris.

Longmans Green, London.

"Fleas, Flukes and Cuckoos" — A Study of Parasites. By Miriam Rothschild and Theresa Clay.

Wm. Collins, Sons & Co., London.

"Semimicro Qualitative Analysis," by Middleton and Willard.

George Allen & Unwin, London.

Mrs. Crawford moved that the recommendation of the Dean be adopted. The motion was seconded by Mr. Johnson and carried.

Offer from Parke, Davis & Co. Ltd.—The President read a letter he had received from Parke, Davis & Co. Ltd., Sydney, asking for the Council's views on a suggestion that the company offer to bring two students from each State to Sydney for two or three days with all expenses paid, to visit the company's laboratories. The Council resolved that it express its approval of the offer, and that, if the proposal is carried further, the selection of students from Victoria be entrusted to the Education Committee and the Dean of the College.

Year Book.—Mr. V. G. Morieson, Chairman of the Year Book Committee, reported that the publishers had been interviewed, and he was now able to advise the Council on a proposal whereby the entire cost of publication and posting of the Year Book could be made without liability to the Council. It was resolved that under the circumstances publication be continued.

A.P.F. Committee.—Mr. Johnson, Chairman of the A.P.F. Management Committee, submitted a report on the work of Mr. Hornby during the month. Arrangements had been made for Mr. Hornby to visit Dimboola, Horsham and surrounding towns. The question of prices of A.P.F. preparations had been the subject of considerable comment, and this matter was under discussion with the Guild.

Mr. Thompson referred to repeated reports of resistance by some chemists to dispensing of A.P.F. preparations. This, in his opinion, amounted to sabotage. The assistance of the Guild in stopping this tendency should be obtained.

Teaching Staff, 1953.—It was resolved that the vacancy caused by the resignation of Major Wilson, Lecturer in Botany, be advertised and that all other lecturers be re-appointed for the year 1953.

Lecturer in Chemistry.—The President reported that several applications for the position of Lecturer in Chemistry had been received. One applicant had been interviewed, but after discussion was not proceeding with the application. It was resolved that the position be re-advertised.

Dispensing for Pentridge.—The Secretary submitted a brief report of discussions which took place with the Chief Inspector and a Senior Inspector of the Public Service Board. A more reasonable offer for the undertaking of the work had come from the discussions, and this had been conveyed to chemists in the Brunswick and Coburg area who might be interested.

Control of Cortisone.—Mr. Baird reported on an interview with the Deputy Director (Commonwealth) Medical Services, Dr. Kerr, who had explained the whole procedure. Mr. Baird said he thought the responsibility in this matter was being moved from the pharmaceutical chemist.

Mr. Hull said the principle of the control was wrong and should be contested.

Mr. Scott asked whether the principal objection was to the method of releasing supplies or to the inadequate profit allowed the chemist.

The President said the Council was concerned with the method of release. The question of profit might be a matter for the Guild.

The President suggested that the matter be left in the hands of the Federal Council of the Guild, in conjunction with the Federal Council of Societies.

Mr. Baird moved in accordance with this suggestion.

Supply of S.V.R.—This matter was further discussed, and it was resolved that a letter on the subject be prepared and signed jointly by Mr. Scott as Federal President of the Guild, and Mr. V. G. Morieson, as President of the Federal Council of Pharmaceutical Societies, and handed to Mr. Scott for presentation to the Minister at Canberra.

National Service Training: Report by the Secretary.—The Secretary said there was additional information on this subject, and one or two people had pressed for more action in the way of exemption or deferral of training. He could report what had been done during the month. He had arranged with the Students' Representative Council to provide a list of all of the students in all of the four years who were liable for National Service Training. He had asked them to supply details of units they were with, camp dates, and to bring forward any difficulties that were being experienced. He had also prepared a report of a series of questions which he put to Captain Dixon, the Liaison Officer between the Army and the Department of Labour and National Service. The report, which gave answers to a number of questions, was read by the Secretary.

The report was received, and the earlier decision of the Council that full information on the subject should be made available to students was affirmed.

Presentation of Portrait.—Final arrangements for the ceremony of presentation of the portrait of the Dean of the College, Mr. A. T. S. Sissons, on Sunday, November 23, were discussed and agreed upon.

College Buildings.—A communication from the Melbourne City Council asking for an undertaking that in the event of permission being granted to build on the site in Parkville, the facade of the proposed College building would not be closer than 30 feet to the street alignment was submitted to the Council.

Mr. Baird said the matter had been discussed with the architect, who was of opinion that the undertaking sought should be given. He read a draft reply prepared by the Secretary, and it was resolved that this letter be sent to the Town Clerk.

Financial.—The Honorary Treasurer submitted the monthly financial statement, and accounts totalling £1913/2/- were passed for payment.

VICTORIA (Continued)

Publicity in "Truth."—Attention was directed to an article published in "Truth," alleging serious disregard by chemists of the law relating to Dangerous Drugs. The Council resolved that a letter on the subject be addressed to the Chief Commissioner of Police.

Presentation of Cheque. — Representatives of the Pharmacy Students' Association attended the Council meeting at 12.15 p.m. for the purpose of making a presentation.

Mr. G. Lowe, the President of the Students' Association, said it was with great pleasure that he presented a cheque for £659/17/- to the Council as a donation to the College building fund. He and his fellow students hoped it would help with the building of the new college. Mr. Lowe was supported by Miss Margaret Ross, Honorary Secretary of the Association, and Miss Jean Elder.

The President thanked the students sincerely for their gift. Each year, he said, the contribution seemed to exceed that of the previous year. The amount now contributed was a record. He thanked the students for their efforts in making the Ball the very enjoyable function that it was, and he congratulated them on the way the function had been run.

Mr. Morieson, Chairman of the College War Memorial Building Fund, supported the President. They valued the knowledge that the students' interests were in the College and its future, and that they were looking after future generations by helping to build a new College.

Mr. Baird, the Honorary Treasurer, added his thanks to those of the President and Mr. Morieson. He said no one was more interested in the new College than the present students, and they were all looking forward to the time when their education would be carried out in surroundings they were preparing themselves for.

The meeting adjourned at 12.30 p.m.

QUEENSLAND

PERSONAL and GENERAL

State News

Mr. J. R. Kenny has purchased Mr. A. J. Clark's pharmacy at Highgate Hill.

Interstate visitors to Brisbane included Mr. and Mrs. D. A. R. Shepard, of Wagga, who spent a few days in Brisbane after holidaying at Southport.

Mr. T. F. Hiscock has purchased the pharmacy conducted by Mr. F. G. Marshall for many years at Bourbong street, Bundaberg.

Mr. and Mrs. A. M. Grant-Taylor have purchased the late Miss Underwood's pharmacy at 550 Lutwyche road, Lutwyche.

Among the folk who are returning from holidays are some who have been enjoying some months overseas. These include Mr. and Mrs. W. E. Martin, of Southport, who arrived in Brisbane by the "Mooltan" after an overseas holiday of nine months.

Mr. and Mrs. R. S. F. Greig, who are travelling home on the "Orcades," are expected in Brisbane at the end of the month.

Holidays are popular with a number of pharmacists at the present time.

Miss Gwendoline Elliott has returned to Brisbane after a boat trip to Melbourne.

Miss Meg Blanchard has chosen New Zealand for her holiday, and she is spending some weeks touring the North and South Islands.

Miss B. M. Laurenson has returned to Killarney after spending several weeks in Brisbane. During Miss Laurenson's absence Miss E. Falconer acted as locum.

Miss M. Breen, of Ayr, spent a few days in Brisbane during the month after a Pioneer tour which took her to Sydney and Canberra.

WEDDINGS.

On October 25 at the Albert Street Methodist Church the marriage was celebrated of Mr. Colin Caswell, ph. chemist, of Murgon, to Miss Dell Francis, Redcliffe.

Of special interest in pharmaceutical circles was the marriage of Miss May Hardy and Mr. W. E. Hendy, as both the bride and bridegroom are pharmacists. Their marriage took place on November 1 at St. James Church of England, Kelvin Grove.

Mr. Colin P. Liebke, ph. chemist, of Toowoomba, was married in the Neil Street Methodist Church, Toowoomba, on November 8 to Miss Ella Gwendoline Twigg.

To the newlyweds we extend congratulations and all good wishes for the future.

CHEMIST BOWLING NOTES.

The monthly match for November was played against the Ashgrove Club on November 5 when the Chemists were represented by three rinks. The day's play resulted as follows:

	Chemists	Ashgrove
Colledge, Lewis, Ward, Fitzsimmons	23	22
Ockelford, Dowd, Belford, Allison	24	15
Roush, Atkins, Lock, Pumfrey	12	28
	—	—
50	65	

Trophy forks for the day were won by an Ashgrove rink.

The second all-day pairs competition was played at Booroodabin during the month. Four rounds were played with the same lead for each round. Prizes for the day were presented by Potter & Birks Pty. Ltd., while Johnson & Johnson Pty. Ltd. gave a prize to the runners-up.

The successful players for the day were:

Lead: R. M. Ward with 8 points plus 23.

Runner-up: H. Ferguson with 6 points plus 21.

Skips: P. M. Coffey with 6 points plus 27.

Runner-up: A. J. Monahan with 6 points plus 12.

Ten pairs competed in the competition, and everybody voted the day a great success.

The final match for the year will be played against the Booroodabin Club on December 3.

REPORT OF THE GOVERNMENT ANALYST.

The report of the Government Analyst for Queensland for the year 1951-52 has been published. This states that during the year the total number of samples examined was 15,675, an increase of 1538 on last year's figure.

Reference is made to the use of chemicals in foods. This stated that a great deal of attention is being given to this problem overseas. Manufacturers, it is stated, are pressing for a more generous view to be taken, but official reaction to this is the demand that manufacturers should prove the harmlessness of the proposed additives. Many cases are on record where the use of a particular chemical has been followed by serious disabilities to health.

A substantial section of the report is devoted to discussion of this subject.

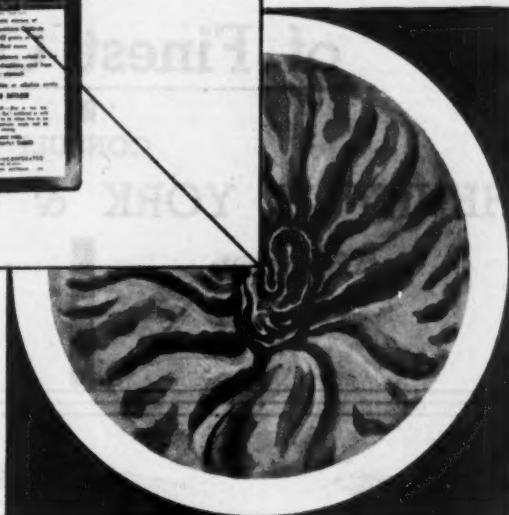
The subject of addition of fluorides to drinking water to reduce dental decay is discussed, and it is stated that "this State does not intend to recommend fluoridation of public water supplies until further long-range experiments have been completed and properly evaluated."

A summary is given of samples of foods and drugs examined for the Department of Health and Home



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1. Larimore, J.W.: Southern, M.J. 44:742, 1951.

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MANUFACTURING CHEMISTS — AUSTRALIA



QUEENSLAND (Continued)

Affairs. This shows that 63 samples of drugs or medicine were examined and 36 were passed.

Another table gives details of legal samples taken by inspectors for examination. A total of 2240 samples of all types of products were examined, and of those 1521 passed and 719 failed. It is interesting to note that of the 11 drug samples examined all were passed.

A number of medicines associated with complaints from the public was checked for accuracy of dispensing and serious errors were found in two. One medicine said to have been dispensed from a prescription for 1/100th grain to the drachm of Atropine Sulphate contained 40 times that amount of the alkaloid. The second sample said to have been dispensed from a prescription reading "Argyrol 5 per cent." was shown to be compound Tincture of Benzoin.

A survey of the Medicinal liquid paraffins (13 brands) on the market and also the Tinctures of Iodine (11 brands) showed that these lines conformed reasonably with official requirements.

Of eight brands of Eucalyptus Oil examined, only one brand failed to attain the prescribed standard, being high in phellandrene and low in cineol content.

A proprietary line submitted with claims many and varied — mostly extravagant and some false and misleading — was shown to be a mixture of crude molasses and honey.

Two proprietary lines of pills claiming value on their chlorophyll content for eliminating body and breath odours, were examined. They contained one-fifth and one-third grain respectively of chlorophyll-like material in each pill — little, if any, more than would be obtained from a leaf of spinach or other naturally green-coloured edible foodstuff.

"Baby Oils."—Four different brands of "baby oil" examined were perfumed mineral oils of the liquid paraffin type, free of olive oil and other saponified oils.

None of the brands declared the nature of the oil present.

PHARMACEUTICAL SOCIETY

Council Meeting

The Council of the Pharmaceutical Society of Queensland met at Drysdale's Chambers, Wickham street, Brisbane, on November 13, at 8 p.m.

Attendance.—Mr. R. V. S. Martin (Chairman), Misses E. Everett, E. Chalmers, Messrs. V. Barnett, L. Stevens, J. E. McCaskie, R. G. Gardner, E. W. Vance, H. G. Sneyd, and the Secretary.

Correspondence.—To Major J. W. T. Joyce, D.A.D.M.S. (Pharmaceutical), Headquarters Northern Command, Victoria Barracks, Brisbane, enquiring if he could provide information regarding the call-up of apprentices for national training. Advising we were under the impression that apprentices, like University students, were to do their compulsory military training of three months during the summer vacation.—Reply intimating that the policy with regard to national service training of pharmaceutical apprentices does not become an Army matter until such time as trainees are in camp. The enquiry had therefore been submitted to the Director of Labour and National Service, who would advise direct concerning this matter.

The Secretary tabled correspondence which the Registrar, Department of Labour and National Service, had forwarded concerning the National Service Acts in relation to pharmaceutical apprentices.

After hearing the correspondence the Council agreed that this set out the position very clearly, and it was resolved that a copy of this communication be sent to Mr. F. C. Kent as Federal Secretary of the Federal

Council of Pharmaceutical Societies for the information of that body.

From Mrs. R. C. Rutter and Mr. W. A. Lenehan, acknowledging messages of condolence.

From Registrar, Pharmaceutical Council of Western Australia, and the Secretary, Pharmaceutical Society of South Australia, acknowledging receipt of Society Year Book for 1952-1953.

Registrar, Pharmacy Board, advising that Miss E. J. Ploetz, of 51 Ashgrove avenue, Ashgrove, obtained the best pass in the Intermediate Examination conducted by the Board in 1952, and therefore qualified for the R. C. Cowley Intermediate Award presented by the Society. The Secretary was requested to communicate with Miss Ploetz advising her of the Award and enquiring as to the books she is desirous of procuring to constitute the prize for 1952.

Mr. F. C. Kent, Secretary Pharmaceutical Society of Victoria, stating he was interested to hear that Queensland would be represented at the discussions on education to take place in Adelaide. He had ascertained from Mr. Lipsham that the most convenient dates would be from February 9-12, 1953. He would be pleased to hear when representatives had been appointed. It was decided to refer this communication to the Tripartite Committee.

General Manager, Parke, Davis & Co. Ltd., stating for some time past his company has been in the habit of inviting the pharmacy students from the Sydney University to visit their laboratories during the course of their studies. Stating that he feels sure that his company would be willing to bring to Sydney for a matter of two or three days, with all expenses paid, the two best students—one male and one female—at the year-end examinations conducted by the Pharmacy Board in each State. This could be offered in the nature of a prize, and the proposal is to bring students from all States to Sydney at the same time. Enquiring the reactions of the Society to this suggestion, and stating that it is hoped to institute the proposal for 1952.

Mr. Barnett said Parke, Davis' action was very commendable, and it should be of some value to those students who were chosen each year to visit Parke, Davis' laboratories.

After discussion it was agreed that the students selected should be the two best students in the final examinations held during the year. The Secretary was requested to write to the General Manager of Parke, Davis & Co. Ltd. expressing the Council's appreciation of the company's generous gesture, and advising that the Council heartily endorsed the suggestion.

Mr. R. S. F. Greig (writing aboard the S.S. "Orcades") reported that he had left London on October 29, and was hoping to arrive in Brisbane on November 30. Conveying good wishes and kind regards to members of the Council, and stating that he was looking forward to being present at the December meeting.

Federal Director, Pharmaceutical Public Relations Secretariat, giving a resume of the activities covered by the Secretariat during the past year.

National Union of Pharmaceutical Students of Australia, forwarding minutes of the 5th National Council meeting held in New South Wales in January last.

New Members Elected:

Associate Member.—Miss J. De Blasi.

Full Member.—Mr. J. R. Kenny.

British Pharmaceutical Journals.—Mr. Stevens reported on the issues of August 23 and 30, September 6 and 13, and Pharmacy International for October.

Pharmacy Board.—Mr. Martin reported on matters which had recently engaged the attention of the Board.

Apprentices and National Training.—Mr. Vance said he did not think a ruling had ever been given concerning the three months' national service training which had to be undertaken by apprentices. He wondered when the three months would be made up by the apprentice. Would it be before he sat for his final examination or when he had finished his final year at College, and would he be required to return

QUEENSLAND (Continued)

to the pharmacy for the three months which was allowed him to undertake his national training? Mr. Vance said this problem had arisen, and he would like some ruling from the Board on the matter.

After discussion it was recommended that Mr. Martin, as the Society representative, submit this question at the next meeting of the Board for a ruling.

The meeting closed at 10 p.m.

THE GUILD

S.B.C. Meeting

The State Branch Committee of the Queensland Branch of the Guild met at Drysdale's Chambers, Wickham street, Brisbane, on November 6, at 8 p.m.

Attendance.—Messrs. W. A. Lenehan (President), C. A. Nichol, F. H. Phillips, A. W. Eberhardt, A. B. Chater, L. W. Huxham, A. N. C. Munro, C. W. Noble, and the State Secretary.

Business ex Minutes:

Night Dispensing Service.—Mr. Lenehan said every State was now being faced with the question of after-hour services. Mr. Attiwill had been shown the Committee's recommendations as passed at its meeting on October 22. He thought they were quite sound, and he recommended that a census should be taken of the chemists in the metropolitan area as to the after-hour service being provided at the present time. When that had been done he suggested that an article should be prepared. It could be submitted to him for his perusal, after which a copy should be handed to the chief of staff of the "Telegraph" and "Courier-Mail" for publication, giving the true position of pharmacy's provision for providing an after-hour service in the Brisbane area.

After discussion, Mr. Chater moved, Mr. Hall seconded, that a census be taken of the chemists in the metropolitan area. Carried.

New Members Elected.—Messrs. W. G. Harvey, Malanda; C. B. Schneider, Mitchell; and L. S. Irwin, Monto.

Reinstatement.—Mr. W. J. Bouttell, Coolangatta.

Branch Pharmacy Recording.—Mr. W. R. French's branch pharmacy at Chinchilla.

Correspondence.—To Mr. A. L. Hodgson, stating the members of the Committee were very pleased to learn of the formation of the Darling Downs Zone. Enquiring what area it is proposed the zone should cover, as Warwick Zone has been in existence for some time, and it embraces Allora, Killarney, Stanthorpe, Texas and Inglewood.—Reply advising the towns it is proposed to include in the Darling Downs Zone. Enquiring the Guild members in the towns mentioned so that they could be contacted in connection with the new zone. Advising it is not proposed to include Warwick in the Darling Downs Zone, as it is thought the coverage would be too large.

The Secretary reported that she had advised Mr. Hodgson of the members in the towns mentioned. There were only two non-members and dispensary managers in two towns.

From the Commissioner of Prices, relative to the application dated September 16, 1952, for the decontrol of pharmacists' dispensing fees. Advising that it was decided at the conference of Prices Ministers held recently in Perth that such dispensing fees should remain under control.

The Secretary said she had reported to the Federal Secretary that Queensland's application had again proved unsuccessful. In reply, the Federal Secretary had intimated that he had not heard from the other States, but he advised that the Perth conference had decided to defer decision of decontrol to the various States. Now the local Prices Commissioner was giving the credit for such a decision to the Perth Conference.

From Hon. W. Power, M.L.A., Attorney-General, re copying of pharmaceutical prescriptions. Replying to our enquiry as to whether or not there is any Act which stipulates that prescriptions must be recorded in the prescription book, advising that his Department cannot undertake to interpret the laws of the State. Stating the Director-General of Health may consider that the keeping of a prescription book is necessary in the proper conduct of the business of a pharmaceutical chemist, but the Guild would be well advised to seek an interpretation of the law from its legal advisers.

Mr. Nichol said the Guild had made the enquiry through the correct Government Department, and if it could not provide advice on the subject he did not think the Committee should be put under expense to find out. He recommended that the matter stand as it is. Chemists had enough book work to cope with already without looking for more.

Mr. Lenehan said he thought it would be advisable to endeavour to secure a correct ruling on the matter.

Mr. Huxham, said he felt that the enquiry should have been directed through the Pharmacy Board. This is the body controlling pharmacists, and it should be in a position to give a ruling on such a matter. Mr. Huxham moved that the enquiry be now submitted to the Pharmacy Board for its advice. Seconded by Mr. Hall. Carried.

Mr. Lenehan said if the Board could not provide a ruling, at least the letters on the file would show that the Committee had not been negligent in the matter should the question arise some time in the future.

State Secretary, Victorian Branch, referring to the sad news of Mr. Rutter's death, and conveying on behalf of the Victorian Branch its sympathy in the loss of such a respected and worthy member. Letter of thanks sent.

Pharmacy News Bulletin issued by the Pharmaceutical Public Relations Secretariat to all members was tabled. Members said this contained very useful information, was well presented, and should be of great value to members in the field.

The Industrial Registrar, advising of variation to the Chemists' Assistants' Award concerning holidays, annual leave, sick leave and long service leave.—The Secretary reported that copies of these alterations had been ordered with the new wage adjustments from the Government Printing Office, so that they could be circularised to members, thus making them familiar with the new requirements.

The Pharmaceutical Society, concerning the sterilisation of eye drops. This emanated from a meeting of the Victorian Society and the Ophthalmological Society of Victoria on the question of the cost involved in sterilising eye drops. The doctors considered that a sterilising fee was a heavy charge for a patient to meet, and in their opinion sterilisation was not necessary in 99 per cent. of cases. The Queensland Society had now passed the correspondence on to the Guild, as it considered that it came within the pricing field.—After discussion, it was agreed that every member of the Committee should be supplied with a copy of the correspondence so that it could be further discussed at the next meeting.

Federal Delegate's Report.—In presenting his report on the Federal Council meeting held in Melbourne in October, Mr. Nichol gave lengthy advice concerning Pharmaceutical Benefits, Merchandising, Bureau of Pharmaceutical Statistics, Pricing, Education, Public Relations, Building.

After having heard the report, members of the Committee thanked Mr. Nichol for the comprehensive report on the business dealt with by the Federal Council. They said it was one of the best reports ever presented, and they congratulated and thanked Mr. Nichol for having so capably represented Queensland.

Results of Examinations Conducted by the Pharmacy Board.—Mr. Munro said his apprentice had failed in

QUEENSLAND (Continued)

his Intermediate Examination, and on communicating with the Pharmacy Board as to the subjects he had failed in, he was informed that the information could not be made available to him. Mr. Munro said he felt that the Board could advise a candidate if he had failed or passed in a subject. Unless a student knew this information, he might be concentrating on a subject for which he had secured reasonably good marks.

Mr. Chater said any recognised educational institution would advise a student if he had failed or passed in a subject.

Mr. Nichol recommended that the Committee write to the Board asking if it could advise students if they had failed or passed in various subjects.

Mr. Munro said he did not think it was necessary to provide percentages. He moved that a letter be written to the Board urging that students be advised if they have passed or failed in subjects for which they sit, this to be made retrospective to the Intermediate Examination conducted by the Board in October. Seconded by Mr. Chater. Carried.

Photograph of Mr. Rutter.—Mr. Hall said he thought it would be fitting if a photograph of Mr. Rutter was acquired for placing in the rooms. He mentioned that there was a very good photograph appearing in the last issue of the "A.J.P." which was taken while Mr. Rutter was in America, and he thought it might be possible to secure a reprint. It was resolved that the matter be left in the Secretary's hands.

The meeting closed at 11 p.m.

SOUTH AUSTRALIA

PERSONAL and GENERAL

State News

Mr. W. M. Murton, of Victoria, has transferred to S.A. under reciprocal arrangements.

Mr. W. Pak-Poy is now assisting Mr. F. Streecher, of Clare.

Mr. D. Moriarity assisted Mr. J. Bird, of Fullarton, during November.

Mr. L. Craig has resigned his position with Mr. C. H. Freeman, of Prospect, to open a pharmacy in Blair Athol.

Mr. R. Hole is now managing Carrig-Chemists Ltd., of Mitcham, after spending some time with Birks-Chemists Ltd., Rundle street, Adelaide.

Mr. A. Wauchope has resigned the management of E. F. Gryst, Hindley street, to open a pharmacy in Freeling.

Mr. J. C. White has purchased the pharmacy established many years ago in Hindley street west by Mr. E. F. Gryst, senior.

Mr. J. Wollard visited Pt. Noarlunga by engagement with Mr. R. Fitzgerald, and also acted as manager for Mr. B. Statton, of Hindmarsh.

Mr. C. Ramsey is now in charge of Freemans-Chemists, James place, Adelaide. Mr. J. Freeman is in charge of the newly-renovated Theatre Royal pharmacy, in Hindley street, which was purchased from Mr. L. Folland.

Miss Avis Chapman and Miss Kaye Lynas will leave for England during the early part of December. They plan an extended tour and to return in about two years' time. Miss Chapman hopes to be able to obtain some experience in the growth of plants on a commercial drug farm.

CORRECTION AND APOLOGY.

On page 264 of the November Journal we printed a reference from "The News" to the outstanding ser-

vices of Mr. Arthur Reusch in the development of the Noorloots War Memorial Community Centre.

Unfortunately — by some circumstance which we cannot fully explain — the heading to the paragraph was changed from "Tribute to Mr. Reusch" to "Death of Mr. Reusch."

We express our regret for this misprint, and record our apologies to Mr. Reusch, who, we understand, is very much alive, for any embarrassment he may have been caused.—Ed.

S.A. PHARMACY STUDENTS SHOW ACTIVE INTEREST IN CHILDREN'S HOSPITAL PHARMACY DEPARTMENT.

In recent years the students have donated the proceeds of their annual Pharmacy Ball to the Adelaide Children's Hospital, provided the money was used to purchase apparatus or equipment for the Pharmacy Department.

Four years ago, for instance, when Mr. A. A. Russell was President, a mixing machine was bought: it has



Photograph Shows Presentation of Stainless Steel Copper by Mr. Dale Weedman and Associates, September, 1952. (Left to right): Mr. S. A. Downie (Chief Pharmacist), Mr. Stuart Mudie, Miss Yvonne Fricker (Secretary), Mr. Brian Williams (Pres. N.U.P.S.A., 1952), Mr. Dale Weedman (Pres. S.A.), Mr. David Saines, Mr. John Flood (Treasurer), and Mr. Max Ramsey.

proved invaluable. Last summer an air-cooling system was installed. Quite apart from its contribution to the comfort of the staff, the plant ensures more effective storage of drugs in hot summer temperatures. In part, students provided this equipment.

Last September, Mr. Dale Weedman (President for 1952) and members of his executive, visited the hospital to inspect and be photographed with the latest useful piece of equipment bought with the proceeds of the Ball held in 1951, when Mr. Lionel Lever was President.

The A.C.H. Pharmacy staff is most appreciative of the students' continued, active and practical interest in their calling, as practised at North Adelaide.

PHARMACY BOARD

Monthly Meeting

The Pharmacy Board of South Australia met at 25 King William street, Adelaide, on November 12, at 7.45 p.m.

Present.—Mr. K. S. Porter (President) in the Chair, Messrs. G. L. Burns, E. F. Lipsham, Walter C. Cot-

SOUTH AUSTRALIA (Continued)

terell, B. F. Mildren, C. A. M. Reid, D. C. Hill and the Registrar.

Correspondence.—Correspondence was received from a registered pharmaceutical chemist, objecting to the opening of a new pharmacy in a certain city area. As this matter was outside the province of the Board, it was decided that the matter should be handed over to the Advisory Committee of the Pharmaceutical Society, and F.P.S.G.A. (S.A. Branch).

Amendment to Pharmacy Act.—Registrar reported on amendments to the Act at present before Parliament.

Depots.—Correspondence was received from a country pharmacist forwarding applications for registration of two depots. As a plan or diagram of the premises proposed for registration under the regulations had not been supplied it was decided that further consideration be deferred pending receipt of such plan or diagram.

Relievers.—Mr. D. F. Moriarty to Messrs. L. E. Hughes, R. H. Fisher and J. W. Bird; Mr. R. A. Hanna to Mr. J. W. Tiver; Mr. J. B. Kildea to Mr. M. Murphy; Miss B. J. Payne to Mr. B. J. Holland; Mr. A. M. Ramsey to Mr. R. E. Cavanagh; Mr. J. A. Carnie to Mr. D. M. Trevelyan; Miss J. Bulman to Mr. F. J. Gould; Miss I. L. Croft to Mr. C. A. N. Jensen; Mr. A. W. Nicholas to Mr. A. W. Wauchope; Mr. M. J. Woollard to Messrs. M. I. Brady, B. A. Stratton and R. J. Fitzgerald.

Finance.—Statement for the month of October was submitted and adopted, and accounts totalling £8/13/6 were passed for payment.

Practising Certificate.—A Certificate of Identity has been received from the Pharmacy Board of Victoria in favour of Mr. W. M. Murton, who is transferring to this State.

Apprentices.—Permission was granted to Mr. T. M. Curnow to assign the indentures entered into with Mr. T. J. Sawyer to Mr. R. Hole.

Galenicals.—The examiner reported on the fourth section and stated that the results of certain students were unsatisfactory. It was decided that a letter should be sent to the students concerned, giving details of the corrections required and setting out the manner in which such corrections are to be submitted.

Ancillary Agreements.—It was decided that ancillary agreements should be required from 11 students.

Labels.—Members reported on the printing of Regulation 70 in the "Gileal News," and it was decided that a letter of appreciation should be forwarded to the F.P.S.G.A. (S.A. Branch).

Registrar reported on negotiations with a registered pharmacist in connection with deficiencies in his label, and advised that the pharmacist concerned is having the matter adjusted forthwith.

Council Meeting

The Council of the Pharmaceutical Society of South Australia met at 25 King William street, Adelaide, on November 4, at 7.45 p.m.

Present.—Mr. J. D. Garrett (President) in the Chair, Messrs. E. F. Lipsham, K. S. Porter, A. C. Holloway, V. L. Mitchell, J. D. Duncan, and the Secretary.

Correspondence.—Letters received from the Department of Public Health, dealing with breaches of the Third Schedule requirements, and indicating that where breaches are detected there is a strong possibility that the persons concerned will be prosecuted.

Letter of sympathy to Mrs. J. A. Robinson, on the death of her father.

Letters of sympathy were also forwarded to Messrs. M. J. and R. H. Callaghan, on the loss of their mother.

The Year Book of the Pharmaceutical Society of Queensland was received with pleasure.

A complaint was received from a country pharmacist, making reference to activities of another member of the profession. It was decided that this matter should be referred to the Advisory Committee for attention.

Squatting.—The Members of the Advisory Committee reported that they had conferred with two pharmacists on the matter of squatting, and it is hoped that as a result of the conference the cause of the complaint will not be proceeded with.

Finance.—Statement for the month of October was submitted and adopted, and accounts totalling £562/8/7 were passed for payment.

Membership.—The resignation of Mrs. R. E. Lord, who has transferred to Victoria, was accepted with regret.

Application for membership was received, and approved, from Mr. R. C. McCarthy.

Students.—Representatives of the Sub-committee dealing with Pharmaceutical Education reported that they had conferred with representatives of the employees' association, and that, in due course, a conference of employers' and employees' representatives would be held.

Preliminary discussion took place on the report appearing in the "A.J.P." (pages 863-871) and further consideration was deferred in order to give members of the Council the additional opportunity of bringing forward any matters requiring clarification.

Education Conference.—Correspondence was received from P.A.A.N.Z. dealing with the dates of the conference to be held in Adelaide in February, 1953, together with enquiries regarding accommodation. It was noted that no indication was given that the Tasmanian Pharmaceutical Society would be represented at the conference, and it was decided that an invitation should be forwarded, asking that a special effort be made for the Tasmanian Society to be represented at this important meeting.

Notification was received from the Education Department that three additional Commonwealth Scholarships had been awarded to pharmacy students.

Correspondence was received from Parke, Davis & Co. Ltd., dealing with the matter of students visiting the company's laboratories in Sydney. Discussion took place, and certain recommendations have been forwarded to Parke, Davis & Co. Ltd.

Minutes of the N.U.F.S.A. meeting held in January, 1952, were submitted, and it was decided that members of the Council should peruse these minutes and that further discussion take place at the next meeting.

Trade Names on Labels.—Correspondence has been forwarded to and received from the Department of Public Health. The Department pointed out difficulties in implementing the suggestions put forward. It was decided that enquiries should be directed to the Victorian Pharmaceutical Society enquiring as to the operation of the regulations in that State.

Kodak Travelling Scholarship.—The report of the Sub-committee was read for the information of members, and correspondence and recommendations have been forwarded to the Federal Council of Pharmaceutical Societies.

Association of Women Pharmacists.—The President reported that he had attended a preliminary meeting held in the office of the Society on November 3. Those present had expressed appreciation to the Council for the use of the office, and had also thanked the President for his attendance.

Martindale Extra Pharmacopoeia.—Mr. Lipsham reported that several references were made in this publication to the Adelaide Children's Hospital Pharmaceutical Formulary, and it was resolved that a letter of congratulations should be forwarded to Mr. S. A. Downie, and that he should be asked to pass on such congratulations to any who had assisted him.

Pharmacy Course.—Mr. Lipsham submitted a detailed report in connection with the discussions which have been taking place dealing with the changes in the curriculum.

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